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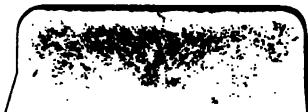
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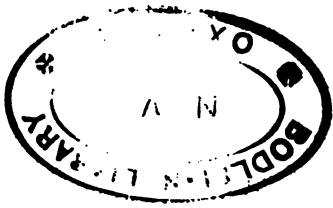
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THE
FIRE UNDERWRITER'S COMPANION:

A Common-place Book,

CONTAINING

SELECTED PARAGRAPHS & ORIGINAL NOTES,

ALPHABETICALLY ARRANGED,

ON ALL SUBJECTS APPERTAINING TO

FIRE INSURANCE PRACTICE GENERALLY:

WITH AN APPENDIX.

By

DONALD A. CAMPBELL.

DE TENEBRIS ORITUR LUX.

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P R E F A C E .



The practical Insurance man of the present day is obliged to fortify himself with a much more varied stock of general knowledge than was formerly the case in the profession. To what extent this little Work will help the earnest official, anxious to keep himself abreast with the various questions in Law, Science, and Commercial Procedure, which press upon him in the course of his daily work, I dare not venture to anticipate ; but I may at least hope that, as a “gatherer up of ill-considered trifles,” I have husbanded, for the use of my Insurance brethren, some small part at any rate of that store of Technical and Commercial information which we all find it necessary to draw upon almost every moment of the business day, but which we have, nevertheless, occasionally some difficulty in at once supplying ourselves with (or in conveying to our correspondents or fellow-workers), simply because the particular words of the legal decision we wish to quote, the exact description of the process we want to specify, or

the precise nature of the technicality we require to explain, are not lying cut and dried at our hand.

It will be seen, therefore, that my Work has no claim to any ambitious character. To gather up and index, in a form handy for instant reference, the fugitive pieces—whether relating to Law, Manufactures, or what not—which the busy official makes mental notes of as he reads, and then stows away in pigeon-holes, without perhaps being certain that he can lay his hands on them again when he wants them—this was the leading idea which gave rise to the present Book. The plan has been elaborated, of course, and other matters incorporated with the original design; but if I shall have succeeded in providing a ready means of reference to even a few of the many points about which a professional Insurance man may from time to time require to refresh his memory, I shall consider that the Book will at least be doing some useful work, until a more exhaustive volume takes its place.

I would also draw attention to the Appendix, to which there is an Index, and which contains verbatim reports of one or two leading cases, and sundry other items of interest.

It is a healthy sign of the times, that such useful publications as the *Textile Manufacturer* and the *Miller* are now oftener seen on the tables of our Insurance leaders than they once were. Inventions in machinery, changes in trading characteristics, &c., are thus brought home to us at once; and the personal obligation which I am under to these Journals, for the awakening to new ideas which they have been the means of causing in me, is one which I cannot sufficiently acknowledge. The *Journal of the Society of Arts*, also, is one which rising men in our profession ought not to neglect studying. Many useful hints are, from time to time, picked up in this way.

Of course, I am not forgetting what we owe to our friends in the regular Insurance press, although I may say that I can remember the time when much less useful matter was supplied in such Journals than is the case at present; this being another healthy sign of the existence of a demand for practical and sound information, which has called forth a corresponding supply.

In conclusion, I desire to thank my kind friends and subscribers for the encouragement which they have from time to time extended to me in the prosecution of my

task. I can only ask from them the further and greater indulgence of dealing as leniently as they can with the many defects and shortcomings incidental to a work compiled at irregular periods, and under circumstances of great business pressure. Notwithstanding these disadvantages, however, I hope and trust that there may be something in these pages which will fulfil the purpose for which they were written.

D. A. C.

MANCHESTER,

June, 1883.



THE
FIRE UNDERWRITER'S COMPANION

A.

Abaiser.—Another name for Ivory Black.

Adepsine.—Adepsine Oil is a product obtained by a new process from the coal oxides of petroleum. There are two kinds, the purer being a clear white, the more inferior of an orange tint. They are tasteless and odourless, in many respects resembling vaseline. The oil is used as a solvent by chemists, and also in the preparation of ointment or soaps. It has only recently come into the market, and it is desirable to ascertain whether, either as a constituent in toilet soap or similar article, it is capable of giving off an inflammable vapour under certain conditions. There should be no hasty assumption in concluding that toilet soaps, or compositions for creating a lather, are perfectly harmless in the above respect. A case in point occurred the other day. An attendant was washing the top of a wash-stand in a lavatory, and was using what was vaguely called “a composition” for the purpose. Overhead, and reaching close down to the stand, was a naked gas light. Suddenly, a flame seemed to burst from underneath the very hand of the scourer. Subsequent enquiries clearly established the fact, that an inflammable vapour had ascended from the “composition.” *Query*—was Adepsine present as a constituent of the composition?

Adjoining Premises (*see* “Damage by Fire in Adjoining Premises”).

Aerophane.—A species of gauze, somewhat of the nature of crape.

Agate.—A tool employed by gold-wire drawers.

Agent.—An agent may be one with an express limited authority to do some particular act: this is a *special* agency. Or he may have authority to do all acts connected with a particular trade, business, or employment: this is a *general* agency. If a special or particular agent exceed his authority, his principal is not bound; but if a *general* agent exceed his authority, his principal is bound, provided what is done is within the ordinary and usual scope of the business which he is deputed to transact. (Smith on "Contracts;" also, Jackson in the "Practical Arbitrator").

Agent's Agreement or understanding with proposer (*see* "Contract of Insurance").

Amidogene.—A new blasting material, which, it is alleged, can be ignited only by exposure to an electric spark on the naked flame, or by heating up to 180 degrees C. It is utterly powerless unless firmly enclosed. Owing to these properties, Swiss railways have admitted it, under certain conditions, for transport. Its explosive effect is stated to be midway between that of ordinary powder and that of dynamite.

Appliances (*see* also under "Instructions for Fire Risk Inspection in Manufacturing Establishments").—In instructing an assessor to report upon a loss, the office should always give him a note of the appliances (if any) for which the company allows a discount, and it should be the assessor's duty to state in his report whether he found each and every one of the said appliances in existence, and in a perfect state of efficiency at the time of the fire. With regard to hose-piping, in particular, the assessor should examine the hose to see whether it has been thoroughly dried and oiled, and carefully housed after use at the fire he is then inquiring into. The assessor must not pass any item representing a charge for use or wear and tear of appliances, for which a discount has been allowed. He should explain to the claimant that the discount is an

allowance to cover the *actual use* of the appliances : that it is *not* a bonus (as some insurers seem to think) given on account of the mere *passive* existence of such appliances on the premises. Should the assessor's report not appear quite satisfactory as regards the actual state of matters in this respect, a "survey order" should be made out by the official whose duty it is to deal with loss matters, and handed to the Surveyor's Department, so that, when the next survey is made, attention may be specially directed to any deficiency in the working of these appliances. A painstaking surveyor will not be content with seeing that the buckets are distributed on the various landings, &c., according to scale : he will ascertain, in addition, that these buckets are kept constantly filled, and that one responsible man has the duty assigned to him of inspecting these buckets not less frequently than once a week. Some firms have been known, of their own accord, and without any outside pressure having been brought to bear against them, to order an inspection every morning : so surveyors need not be backward in standing out for a weekly inspection. They will be met, in some instances, of course, with statements that once a fortnight or once a month is sufficient, but firmness on their part will always carry the day.

Apportionment of the Loss (*see* also under "Rateable Proportion").—In cases of non-concurrency, it has for many years been the practice to exhaust the smallest item of loss first. Latterly, however, a somewhat more arbitrary method has been introduced into the London district ; at least, it does not appear to have as yet come into general adoption amongst assessors in the Midlands or the North. The new plan is called "Taking the mean." For example, suppose Policies 1 and 2 are non-concurrent, and that the apportionment works out as under :—

	Policy No. 1 pays	Policy No. 2 pays
By taking the smallest loss first	£400	£305
" " largest " 	£410	£295
	£810	£600
The "mean" of the results of the above two methods would, therefore, be	£405	£300

Of this new method, it can be only said that it is based on the happy-go-lucky formula of "splitting the difference," which may be unscientific, but is doubtless convenient.

Arbitration.—The right of an insurance company to demand an arbitration under the terms of its policy (provided the point desired to be arbitrated upon be not a question of law or breach of the law) has now been very clearly established. Some have even recently contended that, although arbitration can be proceeded with on a question of amount or concerning a custom of the trade, a question of fact as to ownership could not be within the province of an arbitration. But this, also, has been overruled (*see* "Storey *v.* The London and Lancashire," under this present heading). Again, it has been argued that the words—"shall be a condition precedent to the right of either party under the policy," simply meant, as far as the insurance company was concerned, that the insured (in a case where there was a dispute as to values) could not ACTUALLY LIFT the money before arbitration, but that they could, before entering into arbitration, go to law, and get their right established to some amount left blank, but afterwards to be determined by arbitration. Even this, however, has been decided against the insured; so that it is now established that a company, having decided upon arbitration under the terms of its policy, cannot be even held liable prospectively until the amount has been ascertained. In order to avoid, however, even the remote contingency of having to argue this point over again, it would be much better if insurance companies added, in their "Condition," after the words I have quoted in inverted commas above, the further clause: "and it shall likewise be precedent to the commencement of any process or suit at law whatsoever which could be instituted to prove or maintain such right." Mr. Bunyon, in his invaluable work, quotes the following as a specimen of the most stringent arbitration clause he had ever encountered, and I reproduce it here, so that some offices may have an opportunity

of contrasting it with a "Condition" which may be rather more loosely worded :—

"If any difference shall arise in the adjustment of a loss, the amount (if any) to be paid by the company shall, whether the right to recover on the policy be disputed or not, and independently of all other questions, be submitted to the arbitration of some person, to be chosen by both parties, or of two indifferent persons, one to be chosen by the party insured and the other by the directors. And in case either party shall refuse or neglect to appoint an arbitrator within 28 days after notice, the other party shall appoint both arbitrators ; and, in case of the arbitrators differing therein, the amount shall be submitted to the arbitration of an umpire, to be chosen by the arbitrators before they proceed to act, and the award of the arbitrators or umpire (as the case may be) shall be conclusive evidence of the amount of the loss, and the party insured shall not be entitled to commence or maintain any action at law upon his policy until the amount of his loss shall have been referred and determined as hereinbefore provided, and then only for the amount so awarded. Each party to pay his or their own costs of the reference, and a moiety of the costs of the award, and of the arbitrators and umpire ; and the reference in all other respects to be subject to such rules and conditions as are usually inserted in orders of reference at *Nisi Prius*, if the parties differ about the same."

In "*Belding v. The Norwich Union Insurance Company*," tried beginning of 1879, the Lord Chief Justice and Baron Pollock held that the company, under their printed conditions as to arbitration, could go into all the points of the case before an umpire in a mutually-agreed-upon arbitration, the said umpire giving his decision that the damages were such and such an amount, and yet that the company could afterwards refuse to pay the amount so assessed, and could go into the whole case again when any action to recover the amount of an award was brought. In this case, the company's refusal to pay was based on the ground that the insurer's character was assailable and his claim fraudulent, and they argued that the umpire's decision affected only the actual fire damage which would have been payable by them had the circumstances of the fire and of the claim been *bona fide*. But, on the other hand, from the case of "*Gemmell v. Scottish Commercial*," it would seem established that no arbitration clause, however stringent or explicit, can give the company the right to insist upon an arbitration which shall have for its object the enquiring into whether the claim is fraudulent (or wilfully and intentionally excessive) and the fire wilful. Such a point

—a criminal one—can only be discussed by a court of law. In connection with this subject, *see* also “Covering Note.” The following is the report of the case “*Storey v. The London and Lancashire*,” already referred to:—

COURT OF APPEAL.—FEB. 17TH, 1881.

Sittings at Westminster, before LORDS JUSTICES BRAMWELL, BAGGALLAY, and BRETT.

STOREY *v.* THE LONDON AND LANCASHIRE FIRE
INSURANCE COMPANY.

This case raised a question of law upon a policy of insurance, the question being whether it was a condition precedent to the plaintiff's right to recover that the damage should have been assessed by arbitration before action.

The plaintiff brought his action to recover £200 from the defendant on a policy of insurance, of which condition 13 was as follows:—“If any difference shall at any time arise between the company and the insured or any claimant under this policy as to the amount of any loss or damage by fire (and no fraud be alleged), every such difference as and when the same arises shall be referred to arbitration . . . and this condition shall be deemed and taken to be an agreement to refer as aforesaid, and it is thereby expressly stipulated and declared that the obtaining of such an award . . . shall be a condition precedent to the liability or obligation of the company to pay or satisfy any claim under this policy for loss or damage in respect of which any such difference may have arisen and to the enforcement of any such claim.” The action was tried before Mr. Justice Manisty and a jury on the 18th of January last at Durham, and the jury having been discharged, the learned judge, after consideration, gave judgment for the plaintiff subject to an arbitration to assess the amount of damage.

Mr. LOFTHOUSE, for the defendants, now moved that judgment should be set aside and entered for the defendants, contending that on the construction of the policy it was a condition precedent to the plaintiff's right of action that there should be a reference to assess the amount of damage.

Mr. GAINSFORD BRUCE, for the plaintiff, contended that this was a covenant to pay the loss—it was not merely a covenant to pay the amount assessed.

Mr. MANISTY followed on the same side in support of the judgment, and urged that the defence set up was not a condition precedent to trying the question of liability.

Their LORDSHIPS reversed the judgment of the learned judge at the trial, and construed the condition in the policy to mean that if the insurance company were liable, and did not dispute the amount claimed, they would pay it; that if the company were liable and did dispute the amount claimed, they would pay an amount to be ascertained by arbitration, but until that amount was ascertained there would be no liability on the part of the company. Judgment would, therefore, be for the defendants, with the costs of the action and the costs of appeal.

Mr. Justice Manisty's reason for setting aside the “London and Lancashire” arbitration clause was, that said clause

had reference only to the AMOUNT of loss. He declared that the clause empowered the company to have the *amount* fixed by arbitration, but it did NOT empower them to have a question of ownership of certain goods burnt (such being one of the issues in the present case) decided by arbitration. He declared that the allegation of non-ownership was equivalent to bringing a charge of fraud against the plaintiff Storey, and such a charge could only be discussed by a court of law. The company retorted that to put their insurers to proof of ownership was not necessarily to impute fraud. The Court of Appeal sustained this latter contention, and reversed Mr. Justice Manisty's judgment (*see* "Review," 2nd March, 1881). The following passage is from "Russell on Arbitration":—

"It is not in every case where two parties intend to be concluded by the decision of a third, that that third person is an arbitrator. Thus a valuer between an incoming and outgoing tenant of a farm, or for land, or for dilapidations, or the amount to be paid to contractors for work done, &c., is often not an arbitrator in the proper sense, *unless there have been differences between the parties on the point previous to their submitting to his decision.* A decision, which precludes differences from arising, instead of settling them after they HAVE arisen, is for many purposes frequently not an award."

Architects.—In policies covering architects' materials or property in general, it is desirable to insert the following warranty:—

"In case of damage by fire to the drawings or plans, this company to be responsible for the cost of labour and materials only in making good the same."

Architectural Cotton.—A new substance used in architectural embellishment, and made by converting cotton into a paste and pressing it to any desired form in moulds. When tried and chemically treated, it becomes as hard as stone, and is said to be perfectly non-combustible.

Arnatto.—A paste made from the pods of the Arnatto Tree (South America), and used as a colouring or dyeing material in the silk and calico printing trades. In the home market, it is usually found in the form of cakes of several pounds weight.

Arson.—Does the wilful incendiary act of a wife, or other relative, of the insured, in deliberately setting fire to the property covered by the policy, debar the insured from making and sustaining a claim? In March, 1881, Mr. Justice Watkin-Williams said, in giving judgment in the “Midland Counties Insurance Company *v.* Smith and White” :—

“The truth is that the real contest on the part of the defendants is whether a loss by fire caused by the wrongful act of the wife of insured without the privity of the husband is a loss covered by an ordinary fire policy. That question may be raised in a defence to an action upon the policy, but cannot be decisively determined in the present action. It seems to me, however, upon principle, to be perfectly clear that such a loss *would* be covered by the ordinary policy, and the company are liable for all losses caused by the negligent or wrongful acts of any members of the family or household of the insured.”

Assessor.—The duty of an assessor is to examine into the circumstances of the fire, and to discuss and, if possible, agree upon the measure of damages with the insured. But the amount and general terms of the settlement, which he recommends in his report for adoption by the offices, are not necessarily binding upon the latter. Neither must the assessor (even in what is known as a “friendly reference”) call in a third party as arbitrator, umpire, or referee, without first laying the circumstances of the case clearly and fully before the offices he is acting for, and receiving instructions thereupon. Nor must he, without first consulting his office, agree to the insured's proposition to let the item in dispute be settled by appeal to a third party. In assessing damages to building, he must see that only such sum is allowed as would cover the reinstatement of the property *in the same condition* as it was before the fire, even if that condition be objectionable; for, it is no part of an insurance company's duty to pay for the *improvement* of a risk, however desirable that improvement may be. Thus, if a fire be caused through the ignition of a *wooden* beam in a chimney, and if the construction of the house demands that a supporting beam of some sort should be again placed in that identical position, the assessor must only allow the cost of a *wooden* beam, although the company's surveyor

or district agent should at once be instructed to point out to the insured that HE must improve his risk by causing an IRON beam to be erected in place of a wooden one. Before reporting to the office the final settlement and apportionment of the loss, the assessor must satisfy himself that every item of claim, which it is at all possible for the insured to present, has been dealt with ; for, although the insured may have signed a duly-stamped agreement setting forth that he is prepared to accept such and such a sum in " full discharge of his claim," it has been established that, if he can clearly prove that he has omitted some article, the settlement may be re-opened. No matter how trivial the claim, the assessor should always get the insured's signature to an agreement to accept the sum as adjusted between them, and, to be on the safe side, such agreement should be worded somewhat as follows :—

" I hereby declare that, having gone carefully into every item of my claim with Messrs. ———, the assessors appointed by the insurance companies to appraise the damages, I consent to the sum of £ ——— being reported to the said insurance companies as the full amount which I am prepared to accept in complete discharge of all claims for loss and expenses which I may have against the said insurance companies in consequence of the fire which occurred on my premises on the And I further declare that no circumstance, contingency, or item of any kind which might bear upon my loss, has been left out of my calculations in arriving at the above-named sum."

Average.—Oats paid to a landlord in lieu of rent. (Insurance men may meet this term in leases, mortgage deeds, &c.)

Average Clause.—The Average Clauses, as lately amended by the Tariff Association, now read as follows :—

1.—Whenever a sum insured is declared to be subject to average, if the property covered thereby shall at the breaking out of any fire be collectively of greater value than such sum insured, then the assured shall be considered as being his own insurer for the difference, and shall bear a rateable share of the loss accordingly.

2.—But if any of the property included in such average shall, at the breaking out of any fire, be also covered by any other more specific insurance, *i.e.*, by an insurance which at the time of such fire applies to part only of the property actually at risk and protected by this insurance and to no other property whatsoever, then this policy shall not insure the same except only as regards any excess of value beyond the amount of such more specific insurance or insurances, which said excess is declared to be under the protection of this policy and subject to average as aforesaid.

Compare condition No. 1 with the first condition as it originally stood. The old familiar form of No. 1 was as follows :—

“It is hereby declared and agreed, that whenever a sum insured is declared to be subject to the Conditions of Average, if the property so covered shall at the breaking out of any fire be collectively of greater value than the sum insured *thereon*, then this corporation shall pay or make good such a proportion only of the loss or damage as the sum so insured shall bear to the whole value of the said property at the time when such fire shall first happen.”

The radical and all-important difference lies in the point that, whereas the old form provides that “whenever a sum insured is declared to be subject to the Conditions of Average, if the property be of greater value *than the sum insured thereon*,” &c., the new form states that “whenever a sum insured is declared to be subject to average, if the property be of greater value *than such sum insured*,” &c. The “thereon” in the old form refers to and embraces *all* insurances on the property, whereas the words “such sum insured,” in the new form, confine the question of insurance entirely to the one particular item of insurance indicated by the opening words “whenever A SUM INSURED.” The practical working of the new form may be indicated in the following example :—

Warehouse A.	Warehouse B.
Value of goods therein £5000	Value of goods therein £5000
Specific policy for £5000	Floating policy over A & B for. £5000
Suppose a total loss in B.	

Under the old form of average, “the sum insured thereon” (that is, on A & B) being £10,000, and the property being of that value and no more, the “floater” would have been liable to the full extent of £5000 for the property burned in “B”; but under the new form, the “such sum insured” (that is, merely the sum underwritten in the particular policy which is declared to be subject to average) being but *one-half* the value of the property covered by it, the “floater” could be held liable for only £2500 of the loss. I cannot say whether this result was really contemplated by the Tariff Association when they set about to reframe the clause: some argue that the reframing was merely to

make the closing words of the clause more plain to the general public; but certainly a test case will come to the front very soon, and then we shall see how it is to be worked. Meanwhilè, I can only say that, theoretically, the alteration is perfectly fair, as the old-fashioned argument is absurd, which maintains that because the *total* of a man's insurances is equal to his total loss, therefore each and every item of his insurances must be held to cover relatively each and every item of his loss. The late Mr. Hore, in his erudite work on "Loss Apportionments," effectively exposed this fallacy, and he stated the case with simple truth when he wrote that such an argument "is sound only in the event of the policies being concurrent. If the policies are *not* concurrent, then it is possible that they may cover a portion of the loss to a needless extent, and leave some portion insufficiently protected." As regards the condition making the policy of one company subject to average if there be existing a policy in another company on same property, and which latter is declared subject to average, Mr. Sheriff Erskine Murray, in his interlocutor in the action at the instance of Thomas Jackson, as trustee on the trust estate of Robert Gemmell, Paisley, against the Scottish Commercial Insurance Co. (dated Glasgow, 29 November, 1875), found that although the policy of the "Mutual" was the only one on the risk which was stated to be "subject to average," and that although certain informal negotiations had passed between Gemmell and the "Mutual" representative, with a view to the abrogation of these average clauses, still no formal and binding renunciation of the clauses had been made when the fire occurred, and therefore the "Scottish Commercial" was in law liable to the pursuer in the amount of the policy, subject to any deduction that might fall to be made under the conditions of average.

B.

Back.—A brewer's or distiller's vat, capable of holding about 400 gallons. This is the general meaning of the word, although some brewers apply the term to their wort-cooling tubs.

Bantam Work.—An imitation of Japanese inlaid work or painting.

Bat.—In hat manufacturing, the name given to the masses of fur in process.

Bat Printing.—In pottery manufacture, the art of transferring an impression from an engraved copper-plate to a "batt" (or plate) of gelatine or glue, whence it is impressed upon the glaze, in oil or tar.

Battery.—In hat manufacturing, the name given to a wooden "receiver," containing a kettle filled with water mixed with sulphuric acid. In this liquor, the hat in process is dipped at intervals during a course of some hours.

Baulk.—In the London timber trade, this usually means wood from 20 ft. to 25 ft. by 10 in.

Beef Wood.—Wood of a reddish hue, imported from the Antipodes, and used in marqueterie work.

Beetling Machine.—A machine used in producing ornamental-figured fabrics by pressure from corrugated or indented surface rollers (Ure's "Dictionary of the Arts").

Belting.—Cement for leather belting:—Soak common glue and isinglass (equal parts) for about ten hours in just enough water to cover them. Bring gradually to a boiling heat, and add tannin until the mass becomes ropy. Buff off the surfaces of the leather where it is to be cemented; apply the cement thoroughly to the parts to be joined; then warm the parts over a flame or fire for a few minutes, join the two parts properly, clamp firmly or weight them, and allow to remain undisturbed over night, when the belt will be ready for use. This cement is said to make a very strong joint.

Beverteen, or Beaverteen.—Twilled fustian cloth which has been cropped after dyeing.

Biscuit Ovens.—In the pottery trade, the firing place (a conically-shaped structure, outside of the main building) for the ware before it is glazed. Unglazed ware is said to be in the "biscuit" state. It is said to be an understanding between the landlord and tenant in the Potteries that these ovens are to be treated as fixtures, which are the property of the tenant (if erected by him), and that they may be pulled down when the tenant gives up possession of the factory, or "bank," as it is locally termed. Consequently, a mortgage of the freehold would not apply to the "Biscuit Ovens;" nor would a landlord's policy, covering building only, apply to this fixture of the tenant's.

Bleachers' Responsibility (*see* "Dyers' Responsibility").

Bowking House.—That part of a bleach works where the calico is placed in large troughs or vats, and therein subjected to the action of the various chemicals used in the bleaching. The calico is drawn from one vat to the other, and overhead is a kind of shower-bath arrangement, so contrived that a continuous spray is always falling on the material in process underneath. ("Bucking House" is the more modern term).

Bran Dusters are one of the most hazardous elements in flour mills. The machine consists of either a vertical or horizontal wire reel and brush, of 400 turns per minute. The fine flour found lodging at the head of the brush has often been discovered dangerously hot—in fact, unbearable to the hand.

Brigade Charges.—The "Public Health Act, 1875," seems to be very much misunderstood. I have before me the case of a Local Board, who assert that they can enforce payment from insurance companies for appliances and men sent to fires within their urban district, and this by virtue of the Public Health Act; also, I have the case of a town's fire brigade who, in stating in their report that

Brigade Charges—continued.

the Commissioners had handed over to them the appliances which they (the Commissioners) had purchased to use in the prevention and extinction of fires, add that the said Commissioners were "bound to provide these appliances for their district, under the terms of the 'Public Health Act, 1875';" and, lastly, I have encountered an instance in which a fire-loss assessor makes a statement somewhat similar to the last. All such statements are more or less erroneous. The truth is that the "Public Health Act, 1875," is but a consolidation of previously-existing Acts: it enforces no radical change beyond that. Section 171 of the Act runs as follows:—

171. The provisions of the "Town's Police Clauses Act, 1847," with respect to the following matters (namely):

- (1) with respect to obstructions and nuisances in the streets; and
- (2) with respect to fires; and
- (3) with respect to places of public resort; and
- (4) with respect to hackney carriages; and
- (5) with respect to public bathing;

shall, for the purpose of regulating such matters in urban districts, be incorporated with this Act.

Now, if reference be made to Mr. Bunyon's invaluable work, "Law of Fire Insurance," at page 228 of that book will be found a paragraph stating that the "Town's Police Clauses Act, 1847," contains certain important provisions respecting fires and fire engines, and, following on, these provisions will be found given *in extenso*. They give the Council of any Borough, the Improvement Commissioners of any district, or any Local Urban Authority power to maintain, IF THEY BE SO MINDED, engines, appliances, and firemen within and for their district, and they empower the said authority to levy charges upon the owner of burned property *outside of the district*, if they have sent their men and appliances to such outside fire. But there is most decidedly no *obligation* placed by the Act upon Local Authorities *binding* them to institute and maintain a fire brigade; and, with regard to the charges, Mr. Bunyon is supported by all legal authorities when he states that, according to the usual rules of construction, the power to charge *beyond* the district negatives the right to charge *within* it. The leading case of "Drighlington Local Board

Brigade Charges—continued.

v. Bower” decides the latter point, and the following particulars of it, taken from a circular issued by the “Liverpool and London and Globe Office” shortly after the event, may be perused with profit:—On the 5th of March, 1872, a fire occurred in a mill at Adwalton, Yorkshire, insured by the “Liverpool and London and Globe,” and the account sent in by the Drighlington Local Board for extinction expenses amounted to £42. 4s. 6d. In this account, £10. 10s. was charged for water, and £25. 4s. for use of apparatus, and, as the “Liverpool and London and Globe” refused to pay more than £5 for use of such apparatus, an action was entered in the Bradford County Court, and resulted in the judge declining to decide the question as to whether the Local Board had the right to charge for the use of the apparatus and for the water supplied. The question at issue being of importance, the “Liverpool and London and Globe” carried the case to the Superior Court, before Lord Chief Baron Kelly, and Barons Bramwell, Pigot, and Pollock, at Westminster, on 24 November, 1873, and obtained a decision in their favour. The Lord Chief Baron, in giving judgment, commented upon the Acts of Parliament empowering Local Boards to purchase apparatus for the extinguishing of fires, and to levy a rate for the maintenance of the same, and gave it as his opinion that, if the Legislature had intended that Local Boards should be entitled to any remuneration for services rendered to any of the inhabitants who contributed to the rate, there would have been an express provision to that effect; but, as no such provision exists, they cannot claim. He also stated that the County Court judge ought to have directed a verdict for the defendants on the whole case. Mr. Baron Bramwell considered that the Local Board had a duty to perform towards the public, and that what was common property should be employed in extinguishing fires. Mr. Baron Pollock declared the action not maintainable. It was admitted there was no express contract, and for a judge to say that there was an *implied* one would be contrary to the provisions of the Act and to principle. Mr. Baron Pigot said that no provision was made in the Acts

Brigade Charges—continued.

for remuneration to be made for the extinction of fires within the districts of Local Boards, simply because it has to be done at the joint expense of the ratepayers for the benefit of all.

From the foregoing, it is clear that it never was the intention of the Legislature that insurance companies should pay for fire prevention and extinction. As well might it be argued that, because the Sanitary Authorities had reduced the death-average in a district by improved drainage and other methods, the companies doing a life business in that district should pay the expenses incurred in such improvements! And it does not affect the question that special Local Acts should have been smuggled through Parliament at various times, making insurances companies the bearers of burdens which were intended for the ratepayers' shoulders. Had the insurance interest in the House been in anything but a disgracefully comatose state, these nefarious clauses in Local Acts would never have crept through, and it is a lasting reproach upon the Associated Offices that they have not, ere this, drafted, and, through the medium of some one or another of their directors in the House, introduced into Parliament a thoroughly comprehensive measure, which would set at rest, once for all, these vexed questions of liability for other people's debts. Meanwhile, it should never be forgotten that the "Public Health Act, 1875," although containing no *compulsory* provisions, gives, as we have seen, Local Authorities ample powers to maintain an efficient brigade out of the rates; and Insurances Offices simply aid and abet in breaking the spirit of the law when they encourage, by paying for services rendered by Local Authorities at fires, these authorities to evade the performance of the public duties assigned to them by the Legislature.

Fire insurance is simply a *trade*, like any other form of commercial enterprise, and, equally with all other legitimate trades, is entitled to the services of policemen and firemen. The companies pay heavy rates on account of the many palatial buildings which are devoted to insurance

Brigade Charges—continued.

business in all our large towns, and they are surely warranted in expecting that, if they already pay, in rating, towards the support of the town's brigade, they will not be asked to pay twice over. For it is a fact that many towns, having a borough rate for fire prevention and extinction, never dream of asking an owner or occupier to pay specially owing to fire on his premises *unless he be insured*. Such towns, having a rate to cover all such expenses, simply recover from insurance companies that which is clear profit to the town, so that practically the money wrung from the offices in such cases is tantamount to a local tax on the fire insurance industry. As regards the manner in which special Acts, containing clauses relating to fire extinction, have been passed through the House, undoubtedly great blame attaches to those directors and shareholders of insurance companies who have seats in Parliament. The "railway interest," the "gas interest," the "water interest," are all up in arms the moment the most innocent-looking Bill is presented, if there be the slightest trace of anything in it affecting their concerns; the "insurance interest" alone sleeps on, heedless of whatever clauses a too-wide-awake municipality may slyly insert. It is true that, in some instances, insurance companies and insurance men have been denied a *locus standi* in these matters (read under "Water supplied by a Municipality"); but that does not excuse members who really have insurance interests at heart from bringing in remedial measures, if they find that, under the present rules, insurance companies cannot have a fair hearing at Westminster.

One word as to the employment of policemen as firemen.

In a letter to "Police and Fire," dated 27th of May, 1881, Mr. Norris, chief of the Coventry police, says: "I am clearly of opinion that the police should not act as firemen." This opinion I most earnestly endorse, although I am quite aware of the fact that the tendency to enrol fire brigades out of the police force is on the increase rather than otherwise. But only recently a case was brought under my notice, in which the police fire superintendent pleaded,

Brigade Charges—continued.

as a reason for a delay of twenty minutes having occurred between the receipt at the station of a fire alarm and the arrival of the brigade on the scene, the excuse that his men were nearly all away on special service at a *fete* in the neighbourhood, at which many thousands of people were present. And one can easily conceive it possible for an incendiary to be influenced in the selection of a suitable time in which to commit his crime, by a knowledge of the fact that, on some such special occasion as the foregoing, the fire police would be on duty elsewhere, and that fewer than usual of his neighbours would be likely to be about.

The next few pages contain, in alphabetical order of towns, the particulars of brigade charges in use in those localities concerning which I have been able to get authentic information. Some municipalities (Bradford, Dublin, and Leicester, for instance) have not replied to my request for particulars—doubtless for reasons which are good and sufficient to themselves. A careful comparison of the different scales adopted in these different localities will prove the wide divergence of opinion existing as to what constitutes a “reasonable charge” for services rendered at a fire (for additional Law Cases and decisions, *see* Appendix.)

Towns marked with an asterisk (*) are places in which, whether more or less frequently, the water supply has been found defective, on a large fire occurring :—

BELFAST.—This borough has no compulsory powers. The scale of charges is as follows :—

First hour	.. ..	1st class men	..	4s. each.
„	.. ..	2nd „ „	..	3s. „
Second hour	.. ..	1st class men	..	2s. 6d. each.
„	.. ..	2nd „ „	..	1s. 6d. „
Additional hours	.. ..	1st class men	..	1s. each per hour.
„	„ ..	2nd „ „	..	6d. „ „

Extra assistants, 6d. each per hour from the first. £2 charged for the use of each engine and its hose. The Corps of Commissionaires charge 3s. 6d. per day and 3s. 6d. per night for each man of their corps engaged to watch premises.

Brigade Charges—continued.

BIRMINGHAM.—There are no compulsory powers as regards insurance companies, the brigade being mainly supported out of the rates; but in the beginning of 1881 a scale of charges was drawn up by the superintendent, and accepted by a large number of offices (the "North British and Mercantile," "County," "Manchester," "Hand in Hand," "General," and "Standard," have not, I believe, agreed to accept the scale in question). The scale is £4. 2s. total charge for the first four hours. This includes the use of all appliances and the services of a superintendent and ten men. Fifty per cent. extra on the above £4. 2s. is charged when the fire is beyond the borough boundary. In the case of a *contents* loss, where the building is not insured, or *vice versa*, the offices who had accepted the scale were to be debited with *half* the charge (*i.e.*, £2. 1s.), the other half coming out of the rates. There is an excellent library and reading-room at the chief fire station: to this, several offices have given donations.

BLACKBURN.—The old brigade was disbanded in August, 1882, and reformed out of the police force. The chief constable, or, in his absence, the superintendent of police, is to be chief of the brigade. The brigade superintendent under the old *regime* has been made an inspector of police, but is to organize and administer the brigade, subject to the chief constable, devoting any time not required by such duties to police business. The engineer of the old brigade has been made a first-class sergeant of police, but to devote his time to brigade duties; a brigade of fourteen firemen has been organized out of the borough force, to live in the firemen's house, and to be on duty half by day and half by night in the vicinity of the fire-engines depot, so as to be at hand when any outbreak occurs. The old scale of charges is still to remain in force.

CHARGES FOR ATTENDING FIRES WITHIN THE BOROUGH.

	For any time not exceeding two hours.	Afterwards, the rate per hour (beyond the first two hours)
Branchmen	5s.	2s. 3d.
Firemen	3s.	1s. 6d.

Extra assistants, 1s. for the first hour; 6d. for every hour after.

Brigade Charges—continued.

FIRES OUTSIDE THE BOROUGH.

The following rates will be charged by the Corporation for the use of the brigade and engines when called outside of the borough, *or when used within the borough for any purpose except that of extinguishing fires to the person using and employing the engines and brigade*, and these charges are to be over and besides reasonable charges for horse hire, refreshments, and other contingent expenses :

For the manual engines.	Under two hours.	Two hours, but less than three.	Three hours and upwards.
One engine	£1 os. od. . .	£2 os. od. . .	£3 os. od.
Two engines	£2 os. od. . .	£4 os. od. . .	£5 os. od.
Three engines	£2 10s. od. . .	£4 10s. od. . .	£5 10s. od.

For the steam fire-engine, when called outside the borough, £10 for a turn out, without playing; if required to play, £30 for each day, or portion of a day, of 12 hours. But the steam fire-engine shall not attend any fire at a greater distance than three miles outside the borough limits—measured from the fire-engine station. When the steam fire-engine, without any manual engine, is called outside the borough, no charge will be made for the attendance of any member of the brigade.

FOR THE BRIGADE, OUTSIDE THE BOROUGH.

	Any time up to two hours.	After two hours, at the rate per hour of
Superintendent	10s. 6d. . .	3s. od.
Engineer	7s. od. . . .	2s. 3d.
Branchmen (each)	5s. od. . . .	2s. 3d.
Firemen (each)	3s. od. . . .	1s. 6d.

In addition to the above, will be charged the cost of repairing all damage done to any engine, apparatus, or implement, and also any other necessary expenses incurred by the brigade.

N.B.—Should the order for service be countermanded while the brigade is *en route* to any such fire, it shall nevertheless be considered on actual service, and paid accordingly.

BOLTON.*—The following is a bill recently paid to the Bolton authorities, on account of services at a large fire:—

Use of steamer, 3 hours at £3 per hour.

Horse hire and drivers, £1. 10s.

Superintendent, 9 hours at 5s. per hour.

20 Firemen, first hour, 2s. 6d. each.

20 „ 7 hours, 1s. 6d. per hour each.

Brigade Charges—continued.

BRIGHTON.*—No scale of charges, but the superintendent says he “invariably makes application to the insurance offices” for remuneration of his men’s services at a fire. Half the amount of the gratuities thus obtained is divided amongst the men who attended the fire; the other half goes to a reserve fund for the benefit of firemen injured in the execution of their duty. The brigade was only organized Midsummer, 1881, and consists of one superintendent, four engineers, and 24 firemen—the whole of whom are police officers.

BRISTOL.—No charge made, of any kind, for attending fires *within* the city boundary. Outside the bounds, the charge is 10s. per hour per man. This does not include horse hire nor refreshments.

BURNLEY, Lancashire.—The following bill was paid by the offices in a case where the men were engaged eight hours at the fire, and three hours cleaning apparatus:—

Superintendent (Corporation charge), 19s.
 First-class firemen, 2s. 8d. each per hour for the first three hours, and remaining hours at 8d. each per hour.
 Second-class firemen, 2s. each per hour for the first three hours, and remaining hours at 6d. each per hour.
 Main-valve men, 5s.
 Horse hire: 4 horses at 4s. each per hour, and ostler 1s. 3d. for each horse.

BURY, Lancashire.—No charge *within* the borough. The charge for proceeding beyond the boundary, say as far as two miles beyond, and for attending at fires, which do not require a lengthy stay, is:—Horses, 10s. each; superintendent, 5s.; men, 2s. 6d. each. No charge for use of steam fire-engine or for appliances.

BURY ST. EDMUNDS.—A disastrous fire began in Abbey Gate-street, in this town, on the 15th June, 1882. From eight to ten shops and dwellings were utterly destroyed, and others seriously damaged. The local papers commented severely on the fact that in a town of 16,000 inhabitants there should be no public fire-prevention establishment, especially in a place noted for the dangerous construction of its houses.

Brigade Charges—continued.

BURTON-ON-TRENT.—In addition to a town's brigade, there are the two really excellent brigades of Messrs. Bass and Messrs. Allsopp. There seems to be an understanding (not invariably acted upon, however) that the brigade which arrives first at the scene of the fire gets paid, while the other two get nothing. Within the recollection of the oldest inhabitant, the town's brigade has never yet been known to come in *first*. Messrs. Bass have a double-cylinder steam fire-engine capable of throwing 620 gallons per minute, and there are five-and-a-half miles of hose about their premises, reserved for fire-extinction purposes alone.

CARDIFF.—The present brigade was re-organized out of the police force some five years ago. It consists of twelve constables, who receive two shillings per week each in addition to their police pay, and two engineers, whose time is filled up in assisting the inspector of weights and measures, adjusting, &c. This arrangement is similar to that which obtains in many other towns, where the engineers belonging to the fire brigade, being under the control of the local authorities, fill up their time upon the road-roller or stone-crusher, or in the gas and water works, thus doing work for which otherwise special labour would have to be provided. The cost, to a town, of maintaining a fire brigade under such an arrangement is, therefore, very small. The Cardiff plant comprises one steam fire-engine, one manual fire-engine, three fire-escapes, four hose-reels, and eight ladders. In answer to my enquiries, the head constable (Mr. Hemingway) states that "the brigade is maintained at the cost of the corporation," yet he goes on to say that "the charges for the services of the brigade" are as follows :—

Steamer, for being called out	£	s.	d.
	2	2	0
„ „ a period of six hours and upwards	4	4	0
Manual „ do. do.	1	1	0
Reels	0	10	6

and 1s. per hour per man.

CORK.—The brigade was established in 1877, and consists of one superintendent, four firemen, and one

Brigade Charges—*continued.*

turncock, paid out of the water-rates. No charge whatever made for attending fires. Water supply excellent, and pressure very high. Average number of fires in the year, 54.

DUBLIN.—The authorities have not vouchsafed any reply to my enquiries, but I may say that in Mr. Doyle's evidence before the Select Committee of 1867, he stated, in answer to a question as to whether the insurance companies paid anything at all towards the maintenance of the Dublin municipal fire brigade:—"Nothing at all, unless where the insured is furnished with an account of half the expenses, and then, of course, it becomes a part of the claim on the companies."

EDINBURGH.—To the extreme kindness of Fire-master Wilkins I am deeply indebted for the following remarkably full and interesting account of the Edinburgh fire brigade, and I am persuaded that a careful perusal of the details thus supplied will open the eyes of many who have hitherto thought it a fixed law of nature that insurance companies should be alternately bullied and begged of by brigade authorities. These remarks of mine apply, of course, only to the system of taxing insurance offices in sums that do NOT (or only in part) go into the pockets of the firemen, but simply are used in relieving the rates. As to supporting libraries and sick-benefit funds, I think it a graceful and proper thing for insurance companies to give all they can in that direction: pay *less* to the ratepayers and more to the firemen. Mr. Wilkins' statement is as follows:—

The Edinburgh fire-engine establishment differs in constitution slightly from many others in the United Kingdom.

The numerical strength consists of 40 members: these are divided into two sections—the first are all permanent men, who devote the whole of their time to the duties of the fire establishment, and numbers 30, all told.

The second section consists of 10 auxiliary firemen, who reside at or near the district stations to which they are attached: these 10 are called out for duty when required.

PERMANENT STAFF.

The men forming the permanent staff are divided into two classes.

The first class are all mechanics, representing the following trades, viz.:

Engineers.	Brassfinishers.	Plumbers.
Blacksmiths.	Joiners.	Painters.
Tinsmiths.		

Brigade Charges—continued.

Workshops being provided, together with a smithy, turning-lathe, &c., by this means they are enabled to make a part, and do all necessary repairs to the apparatus belonging to this department, including the street hydrants used for fire-extinguishing purposes, all of which are the property of this establishment.

Second class is principally composed of seamen : these are employed on station duty and keeping the fire apparatus clean at their respective stations, in addition to attending fires.

The salary paid to the members forming the permanent staff of firemen ranges from £55 to £400 per annum, in addition to which they all receive house accommodation, free of rent and taxes, uniform, clothing, &c.

They also receive 1s. per hour each man when engaged at a fire without the municipal bounds.

AUXILIARY CONTINGENT.

The ten men forming the auxiliary contingent receive a permanent salary of £5 each per annum, and when called out for duty they receive :—

4s. for the first hour or any part of that hour.

1s. 6d. for the second hour.

1s. 6d. for the third hour.

1s. for all subsequent hours they may be engaged.

And are supplied with uniform clothing the same as the permanent staff.

FIREMENS' SICK BENEFIT FUND.

We have a fund here, which is called the "Surplus Fire Fund," the capital sunk amounting to several thousand pounds.

The money was collected many years ago by public subscription, after one of the great calamitous fires in Edinburgh ; and, after paying all claims, the remainder not expended was invested for the purpose to relieve disabled firemen, or their widows, or other persons, who may meet with an accident while engaged in saving life and property from fire.

Any member belonging to the auxiliary staff of this brigade, in case of accident at a fire, would receive 16s. per week so long as he was unable to follow his ordinary employment.

The permanent staff of firemen receive full pay in all cases of illness, and in the event of an accident, disabling them from being able to continue their services in the brigade, they would also have a claim on this fund.

Under the Municipal Bill recently passed through Parliament, the Town Council have powers to grant retiring allowance out of the rates of the city to any of their employees.

No deductions have as yet been made from the men's pay towards superannuation, as each case is dealt with on its own merits.

**CHARGES FOR THE ATTENDANCE OF THE FIRE BRIGADE
TO FIRES WITHIN THE CITY.**

There is no charge whatever, either directly or indirectly, for the attendance of the fire brigade, engines, or other apparatus belonging thereto, upon any person, or insurance company, for the extinguishment of fires within the city bounds.

Once a year it is the fire-master's duty to draw up an estimate of the probable expenditure of the fire establishment for the ensuing year : this amount is included in the general assessment, and is collected with other rates of the city.

Brigade Charges—continued.

CHARGES FOR THE ATTENDANCE OF THE FIRE BRIGADE TO FIRES WITHOUT THE CITY.

The charges made for attending fires without the city are as follows :—

For each officer attending the fire, 8s. for the first hour.
 " " " " 3s. " second hour.
 " " " " 3s. " third hour.

And 2s. per hour for the remaining hours they may be engaged.

For each fireman attending the same, the sum of 4s. for the first hour.
 " " " " " 1s. 6d. " second hour.
 " " " " " 1s. 6d. " third hour.

And 1s. per hour for the remaining hours they may be engaged.

This does not include assistants for pumping the engines or for refreshments to firemen. It is expected that the owner or occupier of the premises which are on fire will provide the above : they failing, the officer in charge of the brigade in attendance at the fire would use his own discretion in such matters, in which case it would be chargeable to the owner or occupier in the general account.

There is no special charge for the use of engines, hose, or other apparatus.

The horses attached to this establishment do not attend fires beyond the municipal bounds : they are hired from a livery stables, which is situated in close proximity to the chief station, the owner making his own charge for the use of the same.

There is 50 per cent. on the gross account, which is intended to cover the wear and tear to engines, hose, &c.

THE EDINBURGH MUNICIPAL AND POLICE ACT, 1879.

42 & 43 Vict., chap. 132, sec. 19.

FIRES AND FIRE ESTABLISHMENT.

291. The Magistrates and Council shall provide and have at all times a sufficient establishment of fire engines, hose, and other appurtenances to be used for extinguishing fires ; also, fire-escapes and other implements and requirements for safety for use in case of fire, and the fire-master shall appoint such number of firemen (to be called the fire brigade) as the Magistrates and Council shall think fit and expedient ; and the expense of maintaining the fire establishment and fire brigade, in so far as not contributed to in the manner after provided, shall be defrayed from the burgh assessments.

292. On the occasion of a fire, the fire-master or other officer in charge of the fire brigade may, in his discretion, take the command of any volunteer fire brigade, or other persons who voluntarily place their services at his disposal, and may remove, or order any fireman to remove, any persons who interfere by their presence with the operations of the fire brigade ; and generally he may take any measures that appear expedient for the protection of life and property, with power by himself and his men to break into or through or take possession of or pull down any house or building for the purpose of putting an end to a fire, doing as little damage as possible ; and he may also, on such occasion, cause the water to be shut off from the mains and pipes of any district in order to give a greater supply and pressure of water in the district in which a fire has occurred,

Fire Establishment and Fire Brigade.

Powers of Fire Brigade.

Brigade Charges,—continued.

EDINBURGH MUNICIPAL AND POLICE ACT, 1879.

42 & 43 Vict., chap. 132, clause 293.

FIRE ENGINES MAY BE SENT BEYOND THE BURGH.

293. The Magistrates and Council, or the Fire-master, under such regulations as the Magistrates and Council shall make, may, on the written requisition of some responsible person, permit such part of the fire brigade and fire establishment as they or he may think safe and expedient to be sent beyond the burgh for the purpose of extinguishing fires. Provided always that the owners and occupiers of the property to which such part of the fire brigade and establishment shall be sent shall be bound to defray the whole expense that may be incurred in the transit and use of such part of the fire brigade and establishment, and also such further sum, not exceeding fifty pounds per centum upon the gross amount of such expense, as may be deemed reasonable for the wear and tear of the engines and appurtenance, the amount of which expense shall be ascertained by accounts thereof certified by the treasurer, and the amount of such expense, with the statutory percentage, shall be recoverable by the collector as a debt at common law; the owners or occupiers of the property where the fire may have occurred, and all other persons interested, being always entitled to mutual relief against each other, according to law, for the sums so paid by them, or any of them, from whom the Magistrates and Council may recover or receive the same, and the Magistrates and Council shall have power to modify charges and percentage when they see cause for so doing.

FLEETWOOD.—The charge for the fire engine or apparatus, and men's wages (for alarm of fire only), is:—

For the engine or apparatus	£0 10 0
„ men's wages	1 2 6
Total turn-out charge ..	<u>£1 12 6</u>

The charge for engine or apparatus, and men's time, in case of actual fire, is:—

	For the engine or apparatus.	Men's wages.	Total.
For any time not exceeding 1 hour ..	£1 0 0 ..	£2 5 0 ..	£3 5 0
„ „ „ „ 2 hours ..	1 10 0 ..	3 7 6 ..	4 17 6
„ „ „ „ 3 „ ..	2 0 0 ..	4 10 0 ..	6 10 0

When exceeding three hours, 10s. extra for the fire engine or apparatus, and 2s. 6d. for each man for every hour or fraction of an hour.

GLASGOW.—The powers possessed by, and the mode of procedure of, the brigade authorities in the matter of charges, will be best understood by a perusal of the following clauses of the Special Act relating to Police and Statute Labour of the City of Glasgow:—

Section 165. The said inspector shall make up and deliver to the Board a statement of the whole expenses attending each fire, which shall include the

Brigade Charges—*continued.*

wages payable to the firemen and other persons employed at it, the rewards or premiums which he recommends to be given to such firemen and other persons, the outlay incurred in taking them and the engines to such spot where the fire occurred, and in obtaining a supply of water, and other like expenses; and such statement, in so far as approved of or as altered by the Board, shall be *prima facie* evidence of the amount of the expenses attending the said fire.

Section 166. The proprietor and occupier of every land or heritage within the city in which a fire breaks out, shall be jointly and severally liable to pay to the treasurer, as a contribution towards such expenses, the sum of fifteen pounds sterling, or whatever less sum is equal to one-half of the said expenses.

Section 167. The proprietor and occupier of every land or heritage beyond the city in which a fire breaks out, and to which any engine and firemen are sent, shall be jointly and severally liable to pay to the treasurer the whole of the expenses attending the fire, with the addition of such a sum, not exceeding 25 per cent. on the amount of said expenses, as shall in the first instance be fixed by the Board, as a reasonable contribution in respect of the wear and tear of the engines with their appurtenances, and of the ordinary expenses of supporting the establishment.

Section 168. The treasurer shall give notice in manner hereinafter provided to any proprietor or occupier of a land or heritage, either within or beyond the city, whom he intends to hold liable in payment of the said expenses, stating the particulars and the amount thereof, and requiring immediate payment; and if any such proprietor or occupier considers the amount claimed to be excessive, or disputes the propriety of sending engines and firemen to his land or heritage beyond the city, he may within ten days after such notice appeal to the sheriff, and the sheriff shall thereupon decide such appeal, and may grant warrant for the recovery of any amount awarded by him, with expenses, in the same way as if such an amount were due and in arrear as an assessment, or may allow expenses to the appellant, and grant warrant against the Board for recovery thereof; but if such appeal is not made, the amount specified in the said notice shall be deemed to be due, and shall be recoverable as damages.

It has been attempted to be maintained that Section 166 limits to £15 the sum which the brigade may recover for attending fires in more than one adjoining premises, but which fires owe their joint origin to some original fire in neighbouring premises; it being argued that the words "breaks out" refer specially to the place of origin of a fire, and that the Act was not intended to make those pay for brigade services who had no separate or distinct fire started in their premises, but who suffered owing to communication of fire from their neighbour's burning tenement. The Local Court, however, in March, 1882, decided against this view; so that, if a fire "broke out" in house No. 1, and extended step by step to houses Nos. 3, 5, and 7, the owners or occupiers of the three latter numbers would be equally liable with the owner or occupier of No. 1 to share in paying extinguishing

Brigade Charges—continued.

expenses. It was also argued that, admitting the liability of all concerned in the extent or range of a fire, £15 was the maximum which the brigade could recover for attending a series of communicated fires having a common origin. But this was also over-ruled, the Court holding that the brigade could recover anything up to £15 a-piece from each owner or occupier of each tenement affected by a fire.

Glasgow Salvage Corps.—The following is the scale for the attendance of the Salvage Corps at fires :—

WITHIN THE CITY BOUNDARIES.

1st. For each "Turn out," £3. This charge applies equally to cases in which the Salvage Corps have had no work to do, and cases in which a separate bill is rendered by them for service done. The "turn out" charge is collected by the company insuring the *building*; whereas, the additional charges for service done are generally handed in to the assessor adjusting the contents loss, to be apportioned by him accordingly. The Glasgow Salvage Corps distinctly refuse to render any account to the *insured*, so that, when an office pays the full insurance money upon a burned store, the property being under-insured, the Salvage Corps still look to that office for payment of their bill, although the company has derived no benefit from their services.

2nd. Special services :—

Superintendent	21s.	per hour.
Foreman	10s. 6d.	„
Each man	7s. 6d.	„

Non-contributing offices, 25 per cent. additional.

3rd. Working salvage, same charges as for "Special services."

4th. Watching salvage, 5s. for each man, night or day.

5th. Tarpaulins covering roof, for each tarpaulin :—

For one day, 1s. 0d.	For five days, 3s. 3d.	For three weeks, 8s. 6d.
„ two days, 1s. 10d.	„ six „ 3s. 6d.	„ one month, 10s. 0d.
„ three „ 2s. 6d.	„ one week, 3s. 9d.	„ two „ 15s. 0d.
„ four „ 3s. 0d.	„ two weeks, 6s. 0d.	„ three „ 20s. 0d.

When tarpaulins are used for the purpose of preventing any further damage from the weather, insuring offices on any part of the risk to be charged *pro rata* for any

Brigade Charges—continued.

period not exceeding 15 days from date of fire. At the end of the 15 days the expense to devolve on the offices that have not ordered the tarpaulins to be discontinued.

OUTSIDE CITY BOUNDARIES.

Same scales and rules as above to apply, with an extra for horse hire of 5s. per mile.

HALIFAX.—The following charges represent, I believe, the sums *actually paid* to the individual members of the brigade for attending each fire—that is, the authorities receive no money on account of a fire which they do not hand over to the men :—

CHARGES WITHIN THE BOROUGH.

- 1st hour, 2s. per man.
- Every succeeding hour, 1s. per man.
- Refreshments, 3d. per man per hour.
- Superintendent, up to two hours, 10s. 6d.
- do. for a longer period, 21s.

CHARGES BEYOND THE BOROUGH.

- 1st hour, 2s. per man.
- Every succeeding hour, 1s. per man.
- Refreshments, 6d. per man per hour.
- Superintendent, first two hours, 21s.
- do. for a longer period, 42s.

Charge for use of engine, implements, &c., without the borough (no charge within), exclusive of damage, for the first two hours, £5. 5s. For every succeeding hour, 10s. If the engine is called out, but not required, £1. 1s., and all expenses incurred. The engine shall not be sent to fires upwards of six miles from the police station.

HUDDERSFIELD.*—No compulsory powers.

SCALE FOR ATTENDING FIRES WITHIN THE BOROUGH.

	£	s.	d.
Alarm	0	2	6
Washing and cleaning steam fire engine and its belongings, if taken to fire	0	10	6
Washing and cleaning tender and its belongings, if taken to fire ..	0	10	6
" " " hose cart, if used	0	5	6
Horses for hose cart	1	1	0
do. steam fire engine	3	3	0
Driver do. do.	0	0	0

- Firemen, 2s. per man per hour.
- Watching after the fire, 2s. per man per hour.
- Refreshments: according to what is in .. .
- Constable desirable.

Brigade Charges—continued.

HULL.*—A sad state of matters exists here. There is no properly-organized fire brigade, neither steam nor manual engines (the Dock Company's steamer is for use in the docks only), only standposts and hose, which are borne to the scene of the fire in light spring carts; furthermore, the water supply is erratic, the Town Council lethargic and indifferent, and a large proportion of the buildings (of old date) specially constructed with a view to a "burn out" on as exhaustive a scale as possible. And the chief clerk writes to me, and says that "these arrangements have hitherto been found sufficient!" If he means that they have been found sufficient to make Hull the laughing-stock of the three kingdoms, then I quite agree with him. Furthermore, I am told that they "make no charge" for supplying these "sufficiencies," but they sometimes receive "gratuities" from the offices interested in a fire. That is, I take it, when a building is not *quite* burnt out, and when the water supply does *not* thoroughly cease whilst the fire is in full swing. The offices are then, doubtless, so gratified at the unexpected result of only a *partial* loss, that they vote something to the policemen who have operated with the "light spring carts." To show that these statements are but the bare truth, take the following paragraph from "Police and Fire," of April 8th, 1882 :—

"A disastrous fire broke out, about six o'clock on Monday evening, in an extensive rag warehouse in Hull. The police were soon on the spot, and got into play with the hose, when *suddenly there was a cessation of water*, and for *half-an-hour* the fire burned unchecked, threatening to attack the infirmary."

A second bad case occurred about six months after the last described event. A saw-mill was on fire, and no attempt was made by the police to keep the crowd off, who were actually standing on the hose! A marine and a policeman, standing together on a balcony, had a little difference arising out of holding opposite views concerning the direction in which the hose should be sent—the marine wanting to play upon the flames from one point of vantage, the policeman from another. Ultimately

Brigade Charges—*continued.*

a desperate struggle, vouched for by an eye-witness as having lasted, intermittently, fully half-an-hour, took place, and more than once the hose was turned right round, in the fury of the combat, and the jet of water sent straight into the faces of the crowd below. No "superior officer" was so ill-advised as to attempt to stop the interesting fight, as an accompaniment to which the fire went "cheerily, cheerily along," until the whole place was gutted. A merry time!

KILMARNOCK.—The understanding here is that the town pays half and the insurance companies the other half of the charges, there being a town's rate for the support of the brigade. But, of course, it is entirely optional whether the offices pay or not. The scale is:—

Sergeant of police, 10s. ; members of brigade, 5s. each ; policemen, 2s. 6d. each ; assistants, 2s. 6d. each. This charge will be for the first four hours or any portion thereof. There is no charge for use of engine.

KING'S LYNN.—No compulsory powers. The cost of the fire establishment is defrayed from the Borough Fund. No charge is made for the use of the engines in such parts of the borough as contribute to that rate. But the following is the arrangement under which the members of the brigade are paid from the Borough Funds, viz. :—

The allowances for cleaning and proving the engines, hose, and appliances, on ordinary occasions, and also for cleaning them after a fire, are as follows :—

	<i>£</i>	<i>s.</i>	<i>d.</i>
For each manual engine	1	5	0
„ the steam fire-engine	1	15	0

To be apportioned, *pro rata*, amongst such of the superintendents, engineers, foremen, and firemen as may be employed there, in accordance with the following scale of allowances for attendance at fires, viz. :—

For a fire continuing not more than six hours :—Superintendent, 10s. ; engineers and foremen, 7s. 6d. each ; and firemen and turncocks, 5s. each. If the fire shall have been got under without the aid of the engines and firemen,

Brigade Charges—*continued.*

only *one-half* of the above allowances will be paid. Extra men, not members of the brigade, may be specially engaged at 6*d.* an hour.

OUTSIDE THE BOROUGH.

The owners of property on fire outside the borough boundary shall pay all charges for horse hire, all wages and allowances of firemen as per the above scale, and all the foregoing charges for cleaning engines and apparatus, TOGETHER WITH *the following extra charge for the use of such engines and apparatus, viz. :—*

	£	s.	d.
If absent from borough not exceeding 12 hours	3	3	0
If beyond that time, then for every additional 12 hours or fraction thereof	3	3	0

The allowances for refreshments in cases of out-of-town fires will be for the first six hours (if employed three hours or more in and about the fire), 1*s.* each man; and 3*d.* per hour per man after the first six hours.

KIDDERMINSTER. — Since the following scale was printed, a steam fire-engine has been added, for which no scale of charge has been fixed. The superintendent charges what he considers fair. No charge for appliances is made in the borough. The plant consists of one medium-size steamer, one 6-inch manual, one 7-inch ditto, one curicle engine, two hose reels, one hand pump, one fire-escape.

The brigade consists of one captain, three lieutenants, eight paid firemen, and one engineer.

Scale of charges for the engines and apparatus, and scale of remuneration for paid assistance :—

	£	s.	d.
For the use of engine and apparatus, not exceeding one hour for each engine	1	10	0
Ditto, for each additional hour, or part of an hour, each	0	10	0
For use of hand pumps, buckets, &c., if engines are not required..	1	0	0
The paid firemen, not exceeding one hour each	0	5	0
For each additional hour, or part of an hour, each	0	2	0
Assistants, not exceeding one hour, each	0	1	6
For each additional hour, or part of an hour, each	0	0	9

LANCASTER. — The brigade consists of the entire borough police force, under the Chief Constable.

Brigade Charges—continued.

CHARGES MADE FOR ATTENDING FIRES IN BOROUGH.

Chief Constable, 2s. 6d. for every hour engaged.
 Sergeants, 2s. first hour and 1s. 6d. each hour after.
 Constables, 1s. 6d. ,, ,, 1s. ,, ,,

CHARGES MADE FOR ATTENDING FIRES OUTSIDE BOROUGH.

Chief Constable, 5s. for every hour.
 Sergeants, 2s. 3d. first hour and 1s. 6d. each hour after.
 Constables, 2s. ,, ,, 1s. 3d. ,, ,,

APPLIANCES AND APPARATUS (USE OF).

In the borough . . . 20s. first hour . . . 40s. any length of time.
 Out of the borough . . . 40s. ,, . . . 80s. ,, ,,

Whether the hose is used or not at a fire, if the brigade attends, a charge for first hour will be made.

LEEDS.—The following bill is a fair specimen of the average charge made by the Leeds Corporation Brigade:—

	£	s.	d.
Alarm	0	2	6
21 men of the Constabulary Fire Brigade, at 2s. each	2	2	0
2 horses with steamer	2	0	0
2 ,, without steamer, but with other apparatus	2	0	0
Washing and cleaning	0	10	6

Inasmuch as it is generally understood that the 2s. per man charged for attendance at each fire does not go to the constables (who receive their ordinary pay as policemen, with very likely something like 2s. a week extra for their services as firemen), many companies object to pay the Leeds Corporation a charge per man which they (the Corporation) might collect, owing to a run of fires, three or four times over in a week, and yet the men would receive only *one* such sum per week, no matter how many fires they attended.

LIMERICK.—Before 1878 there was virtually no fire brigade at all in this town. About that date, seventeen of the leading firms established the "Limerick Merchants' Fire Brigade Company, Limited," the members of the brigade consisting of a captain and twelve men. The success of this undertaking ultimately led the municipality

Brigade Charges—continued.

of Limerick to establish a *Corporation* Brigade, so that two independent brigades are now in existence. The total charge of the "Merchants'" Brigade (to those offices who have not agreed to an annual subscription of say £5) is £5. 5s. per hour. No particulars are to hand as to what the charges of the "Corporation" Brigade are.

LIVERPOOL.—The special Acts obtained by this city are very effective, but they are free from the stain of "black-mail" provisions directed against the insurance companies. In his evidence before the Select Committee of 1867, Mr. F. A. Clint stated that the rate levied upon the ratepayers to sustain the fire brigade was one farthing in the pound. It is doubtless considerably more now.

Liverpool Salvage Corps.—The services of this excellent corps (one of the best of its kind in the world) are not intended to be restricted to the *Tariff* offices, it being an institution supported by *all* fire companies. The joining fee is £20, and periodical assessments are made according to requirements, the minimum being £5 to those offices doing the smallest amount of Liverpool business. With regard to the charges made for their services at a fire, the scale is very high, the intention being to reduce the number of assessments.

LONDONDERRY.—No charge made for engines or appliances, but the following items are usually claimed:—Superintendent, £1; firemen, 3s. 3d. an hour each. The brigade are said to be very dilatory in turning out, and their general efficiency is open to question.

MACCLESFIELD.—The charge of the Corporation Fire Brigade in a recent case was:—

	£	s.	d.
Captain and engine (the "lumping" is objectionable) ..	5	5	0
Horses	1	10	0
Firemen	3	0	6

There is likewise a "Macclesfield Volunteer Fire Brigade," who claim for horse hire, 5s. for each driver, and £3. 3s. for wear and tear of engine and appliances.

Brigade Charges—continued.

CHARGES MADE FOR ATTENDING FIRES IN BOROUGH.

Chief Constable, 2s. 6d. for every hour engaged.
 Sergeants, 2s. first hour and 1s. 6d. each hour after.
 Constables, 1s. 6d. ,, ,, 1s. ,, ,,

**CHARGES MADE FOR ATTENDING FIRES OUTSIDE
 BOROUGH.**

Chief Constable, 5s. for every hour.
 Sergeants, 2s. 3d. first hour and 1s. 6d. each hour after.
 Constables, 2s. ,, ,, 1s. 3d. ,, ,,

APPLIANCES AND APPARATUS (USE OF).

In the borough . . . 20s. first hour . . . 40s. any length of time.
 Out of the borough . . . 40s. ,, . . . 80s. ,, ,,

Whether the hose is used or not at a fire, if the brigade attends, a charge for first hour will be made.

LEEDS.—The following bill is a fair specimen of the average charge made by the Leeds Corporation Brigade:—

	£	s.	d.
Alarm	0	2	6
21 men of the Constabulary Fire Brigade, at 2s. each	2	2	0
2 horses with steamer	2	0	0
2 ,, without steamer, but with other apparatus	2	0	0
Washing and cleaning	0	10	6

Inasmuch as it is generally understood that the 2s. per man charged for attendance at each fire does not go to the constables (who receive their ordinary pay as policemen, with very likely something like 2s. a week extra for their services as firemen), many companies object to pay the Leeds Corporation a charge per man which they (the Corporation) might collect, owing to a run of fires, three or four times over in a week, and yet the men would receive only *one* such sum per week, no matter how many fires they attended.

LIMERICK.—Before 1878 there was virtually no fire brigade at all in this town. About that date, seventeen of the leading firms established the "Limerick Merchants' Fire Brigade Company, Limited," the members of the brigade consisting of a captain and twelve men. The success of this undertaking ultimately led the municipality

Brigade Charges—continued.

MIDDLEWICH LOCAL BOARD.—The brigade consists of one superintendent, one captain, two sergeants, and eight firemen. The following rules are extracted from the Book of Instructions issued by the Local Board :—

Rule 6. The superintendent and captain shall be paid 1s. 6d. for every hour they are employed on the occasion of a fire in the district of the Local Board, and 2s. 6d. out of the district. The firemen 9d. per hour in the district, and 1s. out. Extra men engaged by the superintendent to be paid 9d. for each hour in or out of the district.

Rule 7. No charge shall be made for the engines or apparatus if the property on fire be in the district of the Local Board, EXCEPT THE PROPERTY BE INSURED ; then, and also on the occasion of a fire out of the district, £2. 2s. will be charged for the first four hours for the engine and the first four hours for the reel ; and 10s. 6d. for every succeeding four hours, or a fractional part thereof.

Rule 8. The subscribers to the purchase of the fire-engine, in case of fire, are to be charged for the use of such engine at the rate of one-half the before-named charge.

It will be seen from the proviso inserted in Rule No. 7, that this Local Board is either profoundly ignorant of the important decision given in the case of the Drighlington Local Board *v.* Bower (referred to in my introductory remarks on "Brigade Charges") or else they have calculated, as many Local Boards do, upon insurance companies forgetting that their rights have been legally established as regards the point in question. The fact that, in this case, the engine was, either in whole or part, purchased by subscription of a portion only of the inhabitants does not affect the question, as the engine and its appurtenances is *maintained in good condition* out of the rates, and is, therefore, the common property of the ratepayers, be used, as Baron Bramwell ruled, in the only way that common property *should* be used, viz., for the benefit of all—for the common good.

NEWCASTLE-ON-TYNE.—

Each constable, when called to a fire where the apparatus is not used ..
 When the apparatus is used, for the first hour or part thereof 2
 And for each hour, or part of an hour, after the first hour 1 0

	Day	Night, 10 p.m. to 6 a.m.	Officer.	Firemen.
	s.	d.	s.	d.
..	2	8	..	..
..	3	4	..	..
..	1	0	..	..

Brigade Charges—continued.

STEAM FIRE ENGINE.

	If used.	If not used.
	£ s. d.	£ s. d.
Within the borough	3 3 0 ..	1 11 6
„ 3 miles of St. Nicholas Church ..	5 5 0	3 3 0
For each mile above 3 miles and not exceeding 5 miles	extra 2 2 0 ..	extra 2 2 0

MANUAL ENGINE.

Within the borough	1 11 6 ..	1 1 0
„ 3 miles of St. Nicholas Church ..	3 3 0 ..	1 11 6
For every mile above 3 miles	extra 1 1 0 ..	extra 0 10 6

HOSE REELS.

For 1 hour or part of an hour	0 10 0 ..	0 5 0
„ each hour or part of an hour after the first hour	0 2 6 ..	..

Horse hire and post-boys or drivers charged for when employed.

NORTHAMPTON.—No charge for use of engine or appliances inside the borough. Offices who have not subscribed to the engines are charged one guinea when the engine attends a fire, outside of the town, in which they are interested.

FIREMAN'S PAY, WHETHER INSIDE OR OUTSIDE BOROUGH.

Superintendent . .	4s.	1st hour . .	3s.	2nd hour . .	2s.	every hour after.
Deputy do.	3s.	„	2s.	„	1s. 6d.	„
Firemen	2s.	„	1s.	„	9d.	„
Messenger	1s.	„	6d.	„	4½d.	„

NOTTINGHAM.—The services of the fire brigade within the borough are given gratuitously. If their services are called elsewhere, the charges are as follows :—

Manual engine, £3. 3s.
Four horses and driver, £2. 12s.
Firemen, 2s. first hour, 1s. 6d. second hour, and 1s. for every subsequent hour.

The members of the brigade belong to a Firemen's Association, and a good library is at their disposal.

OLDHAM.—The borough has no compulsory powers, but the following scale has been agreed to between the Watch Committee of Oldham and the Fire Offices Committee :—

Brigade Charges—continued.

SCENE OF FIRE DISTANT ONE MILE.

Engine with two horses, 15s.
 „ „ one horse, 10s.
 First-class firemen, 1s. 6d. for first hour.
 Second-class „ 1s. „ „

SCENE OF FIRE DISTANT TWO MILES.

Engine with two horses, £1 5s. for the two miles.
 „ „ one horse, 16s. 6d. „ „
 First-class firemen, 5s. 6d. for the four hours after the first hour.
 Second-class „ 3s. 8d. „ „ „

The charge for first-class firemen for 18 hours would be at the rate of 1s. 4d. per hour, counting from the first hour.

SCENE OF FIRE DISTANT THREE MILES.

Engine with two horses, £1. 15s. for the three miles.
 „ „ one horse, £1. 3s. „ „

It may be interesting to note that the chief constable of this borough, when giving evidence recently in support of the excessive charges formulated by the Salford Corporation, said of his own borough: "We are entirely in the hands of the insurance companies, who have treated us most scurvily."

It may also be well to note that recently, at a meeting of the Oldham Watch Committee, it was reported that an inspection of mills and workshops in the borough over three storeys high had been made, to ascertain the provision that had been made for iron ladders in case of fire. It was found that 181 mills were supplied with ladders, 29 were indifferently supplied, and 102 were entirely without. The number of mills and workshops in the borough is 312. It was resolved that the attention of millowners be drawn to the inconvenience and danger of being without iron ladders.

PUDSEY, Yorkshire.—The services of the Pudsey Volunteer Fire Brigade will ONLY be rendered subject to the following charges and conditions:—

1st. Where the owner of the property is not a subscriber to the funds of the brigade :

For the manual engine, £10.
 „ steam „ £16.

Brigade Charges—*continued.*

2nd. Where the owner of the property IS a subscriber to the funds of the brigade :

For the manual and steam engines together, £16.

3rd. Where the owner of the property is insured, and both he and the insurance company are subscribers to the funds of the brigade :

For the manual and steam engines together, or either one of them, £5.

4th. In addition to the foregoing charges for the use of the engines, the brigade make a further charge for the firemen's services, as under :

For the first four hours or portion thereof, £4. 10s.

„ every additional four or portion thereof, £4. 10s.

Extra assistants, according to sum actually paid.

5th. The other incidental charges of the brigade are :

For every horse hired, 15s.

Alarm, 3s. 6d.

Refreshments, according to actual cost.

A "turn out" carries the above charges, even although the brigade do not play.

ROCHDALE.—Scale of charges for attending fires within the borough :—For the use of steam fire-engine, £2. 2s. ; manual engine, £1. 1s. ; firemen (all ranks), 3s. per hour. And for watching after a fire, firemen are charged for at the rate of 1s. per hour.

For attending fires outside the borough :—Steam fire-engine, £5. 5s. ; firemen (all ranks), 3s. per hour.

A bill is made out and sent to the owner of the premises on fire, in accordance with the above scale of charges and other incidental expenses incurred; the bill being afterwards submitted by them to the offices insuring the buildings, &c., who generally pay the Corporation for the use of the engines.

The chief constable is captain, an inspector of police is superintendent; one police sergeant and seventeen police constables form the rest of the brigade.

The brigade appliances consist of one steam fire-engine (Merryweather's make), size 620; one ~~man~~ 7½-inch pumps, 9-inch stroke; one hose ca

Brigade Charges—continued.

scope fire-escape (Clayton's patent), 2,200 yards of hose with Morris's patent couplings. The couplings have been in use for nearly two years, and are a great improvement to the old screw couplings previously in use in this brigade.

The whole of the members of the brigade belong to the Lancashire Fire Brigade Friendly Society, which grants a weekly allowance to its members when injured on fire brigade duties.

SALFORD.—The "Improvement Act (1862)," possessed by this borough, is of the most stringent nature as regards the obligations of insurance companies. By it the Corporation can charge the fire offices for use of engine and appliances and for men's wages. The scale is as follows:—For the first hour, superintendent, 10s.; men, 3s. each; horse hire, £2. 2s. per pair; hand hose cart, £1; steam fire-engine, £2. 10s.; engine and hose carriage, £1. 1s.; turncocks, 3s. 6d. each. (Some items since modified. See Appendix.)

Section 274 of the Act reads as follows:—

And whereas it is expedient that all extraordinary expenses occasioned by any fire should be borne by and amongst all the respective insurance offices who have insured against fire property endangered, or to which assistance has been given or extended by such fire-police establishment, and by and amongst all the respective owners of uninsured property endangered, or to which such assistance as aforesaid has been given or extended, in fair and equal proportions: be it enacted, that all such extraordinary expenses aforesaid in the case of any fire shall be taken to be the wages of the fire-police consequent upon the occasion, in addition to their ordinary allowance, and the payments for further assistance necessarily employed on such occasions, together with such sum as the Corporation shall think reasonable for the use and risk of their engines and utensils, and shall be paid to the superintendent of the said fire-police establishment by the respective insurance offices so having insured as aforesaid in proportion to the amount by them respectively insured on such property, and by the respective owners of uninsured property in proportion to the value of such respective property as aforesaid; provided that no such office shall in any case be liable to pay a larger sum than the amount by such office insured, or than the amount of the property upon which the insurance shall have been made by such office, nor shall any owner be liable to pay a larger sum than the amount of his property uninsured, and when any property is insured in two or more insurance offices each such office shall only be liable in proportion to the respective amounts by such office insured.

A great deal of soreness (justifiable, beyond a doubt) prevails amongst the offices regarding the manner in which

Brigade Charges—*continued.*

the above-stated arbitrary powers of the Salford Corporation are exercised. Heavy charges have been on former occasions (I believe the authorities have latterly become more circumspect in that respect) levied in cases where, for instance, only two steps of a staircase have been scorched, and in other instances where the fire had been extinguished before the arrival of the brigade. Within the last twelve months no less than *four* actions have been defended by insurance companies, wincing, not at the amount considered in itself, but at the gross injustice of the principle upon which such charges were put forth. The "Union" defended one of these actions, the "Royal" two (one of them, *pro forma*, in the name of the "Patricroft Spinning Co."), and the "Manchester" one. The last-named office alone has the satisfaction of knowing that they have beaten a grasping municipality, the other three actions having gone in favour of the Salford authorities. (The "Royal" afterwards won on appeal. *See* important decision given in Appendix.)

The following is the newspaper account of the action against the "Union," which was heard on the 2nd of March, 1882 :—

At the Salford Borough Police Court this afternoon, before Mr. J. Makinson (stipendiary), Mr. J. Lee, and Mr. R. Hankinson, the Union Fire and Life Assurance Company, Manchester, were summoned, at the instance of the Watch Committee of the Salford Corporation, for refusing to pay £11. 17s. 6d. for the services of the borough fire brigade. Mr. J. C. Walker appeared in support of the summons, and Mr. Marlow (Messrs. Marlow and Dickson) defended on behalf of the company. Mr. Walker said the summons was taken out under the Salford Improvement Act, 1862, section 275 of which stated that in case any dispute should arise between the fire brigade and any insurance companies as to the charges made by the brigade for attending any fire, the amount should be apportioned by the magistrates. He held that the magistrates had no power to lessen the amount charged, which in this as in every other case was according to a fixed scale made by the Corporation, but had only power to apportion the items.—Mr. Marlow contended that Mr. Walker had put a wrong construction altogether on the Act, and that the magistrates had power to lessen the amount if they thought it was unreasonable.—Mr. Walker : But we contend that our charges are reasonable, and that being so the bench have no power to reduce them.—Evidence was then given to the effect that on the 11th January last a fire occurred on the premises of the Manchester and Liverpool Screw, Bolt and Rivet Company, Oldfield-road, Salford. Information was conveyed to the chief fire-station in Ford-street, and Supt. Willis turned

Brigade Charges—continued.

out with a body of men, steam fire-engine, and three manual engines. The fire was soon extinguished, and damage only to the amount of £5 or £6 was done. The account sent in to the Union Assurance Company consisted of the following items:—28 firemen, one hour, at 3s., £4. 4s.; three turncocks, at 3s. 6d. each, 10s. 6d.; superintendent, 10s.; four horses, £2. 2s.; one hand hose cart, £1; steam fire-engine, £2. 10s.; three manual engines, £1. 1s.; total, £11. 17s. 6d.—Mr. Marlow contended that the Corporation ought not to have charged for the “use and risk” of the steamer, because it was never used, and nearly all the other items were excessive. He called Mr. Tozer, superintendent of Manchester fire brigade, and Mr. Hodgkinson, chief constable and superintendent of the Oldham fire brigade, but their evidence went to show that under the circumstances the charges were not excessive.—The bench made an order for the payment of the whole amount with costs.

Almost immediately after the above case (*i.e.*, on 28th March, 1882, at the County Court held at Salford), the “Manchester” Insurance Company were summoned, *in the name of the Mayor, Aldermen, and Burgesses of the Borough of Salford* (it is of importance to note the part printed in italics) for the non-payment of the following bill rendered on account of a “turn-out” merely, to a fire by which no appreciable damage was done, only two steps of a staircase being slightly scorched, and no claim lodged with the office insuring buildings—contents not insured. The fire occurred on 5th May in the preceding year.

	£	s.	d.
13 fireman at 3s. each	1	19	0
2 turncocks at 3s. 6d. each	0	7	0
1 superintendent	0	10	0
Horse hire	0	10	6
1 engine and hose carriage	1	1	0
	<u>£4 7 6</u>		

The defendant's counsel raised the point that the summons ought to have been, in terms of the Special Act, taken out by and in the name of the superintendent of the fire brigade, and not in the names of the mayor, &c. There was a non-suit accordingly, with costs. It may be here mentioned that such a summons cannot be heard before a MAGISTRATE unless taken out within *six months* of the happening of the fire. Hence the reason for carrying the “Manchester” action to the County Court. After the non-suit, a fresh summons was taken out and heard before the County Court judge on the 25th April, 1882, with the

Brigade Charges—continued.

result that the insured property was declared not to have been in danger, and that consequently the fire brigade's bill of charges could not be enforced. This decision left untouched the real merits of the case, which, in the defendant's brief, were clearly laid down as follows:—

1st. The first charge is £1. 19s., for 13 firemen at 3s. each. It can be proved out of the books of the borough that it is the practice of the municipality to use a portion of the police force as fire-policemen, paying them *three shillings per week*, out of the fire-brigade list, in addition to their wage as policemen; and this is all the pay they get, and therefore cannot be "extraordinary" expenses.

2nd. The next item is that of 7s. to the turncocks. This truly comes under the Act as "extraordinary expenses," because it appears the turncocks actually do receive 3s. 6d. each for every fire they attend.

3rd. Superintendent, 10s. This person is paid a regular salary, does *not* receive the ten shillings, and cannot therefore come under the Act.

4th. Horse hire, 10s. 6d. The horses are in the regular service of the municipality, and cannot, therefore, be the occasion of an "extraordinary" expense. The last item—charge for use of engine—must follow the same suit.

It has also been suggested that the municipal books will show that, in some years, the amount claimed from different insurance companies as *extraordinary expenses* exceeds the **WHOLE** of the expenses for wages, ordinary and extraordinary, and is never under them, thus making the different insurance offices pay as much on account of their insured property as was sufficient for the entire insured and uninsured property in the whole borough.

The next action was that brought against the "Royal" Insurance Company, in the first week of May, 1882. The newspaper account runs as follows:—

At the Salford Borough Police Court this morning, before Mr. Makinson, stipendiary, the Royal Insurance Company, King-street, Manchester, were summoned for refusing to pay £4. 18s. 9d., expenses occasioned in the ~~entire~~

Brigade Charges—*continued.*

tion of a fire which occurred at 89, Broad-street, Pendleton, on the 28th October, 1881.—Mr. Walker, deputy town clerk, appeared for the Corporation; and Mr. Taylor, barrister (instructed by Messrs. Orford and Milne), for the Insurance Company.—Mr. Walker, in opening the case, said that it was a summons taken out under section 274 of the Salford Improvement Act to recover a sum of £4 18s. 9d. for extra expenses, which the Corporation alleged had been incurred by the fire brigade in extinguishing a fire which broke out at 89, Broad-street, Pendleton. The premises were occupied by James Parry, furniture dealer. The fire broke out at the rear part, burning down those premises, and spread rapidly to an adjoining building, the roof taking fire. The brigade then turned their attention to this outbreak. The part which was destroyed was insured by the County Insurance Company, and the other by the defendants. The cost of the attendance of the brigade was duly apportioned to each company, the County paying their share, but the Royal Company had not.—Mr. Willis, superintendent of the Salford Fire Brigade was called, and said he received information of the fire about 9.35 on the evening of the 28th of October, and shortly after his arrival the cornice of the roof of the premises insured by the Royal Company took fire. He directed his attention to this place, and in his opinion this building would have been burnt down only for the assistance.—For the defence, Mr. Taylor contended that the defendants were not liable to pay anything to the Corporation, as the Act of Parliament constituted the magistrate to be the sole judge as to whether anything should be paid. If it was considered by the stipendiary that something should be paid to the Corporation, then he (Mr. Taylor) thought it must be a very small sum, if fairly apportioned, because, while the exertions of the whole brigade were paid to the destroyed premises, only one jet, according to Mr. Willis's statement, was occupied on the buildings insured by the defendants. The Salford Fire Brigade was instituted mainly to protect the property of the ratepayers, and the owners of the buildings where the fire broke out were ratepayers of the borough. The Corporation were only entitled to charge for the use and risk of the engines.—Mr. Makinson remarked that the arguments put forth by Mr. Taylor were important, and he should take time to consider them. He agreed with a great deal of what had been said by Mr. Taylor, and he should give his decision on Saturday, but at the request of Mr. Walker deferred it till Monday.

On the Monday, therefore, Mr. Makinson, in delivering judgment, said—

It appeared to him there were only two ways of making the apportionment—either according to the amount of work actually done, or on the amount for which the premises were insured. He thought the former was the proper method. The total amount incurred was over £14, and the defendant company were responsible for one-thirteenth of that amount, which would be £1. 1s. 6d., and there would be a verdict for that amount.—Mr. Walker applied for a case, but Mr. Taylor (who represented the company) objected.—The stipendiary had his doubts about the matter, but would let the Corporation have their own way.—(*See* verbatim account of the arguments in this case, and of judgment on appeal, in the Appendix.)

The fourth case, heard some five months later than the preceding one, was that of the Salford Corporation against

Brigade Charges—continued.

the Patricroft Spinning Company. The "Royal" (acting on behalf of the half-dozen offices interested in the "Patricroft" loss) were the real defenders of the action. The bill in dispute was as follows :—

- 17 men, £11. 18s. for six hours, at the rate of 14s. each for the term,
or 2s. 4d. each per hour.
2 steam fire-engines, £42, or at the rate of £3. 10s. each per hour.

The following is the judgment in the case :—

Mr. MAKINSON : I do not think this ought to be looked at as if there were anything in it that came upon you by surprise. These charges have been made by the Salford Corporation for four years, and the defendants knew when they sent for the fire brigade that they were in force. It is perfectly well known that you may go to one shop for an article and pay 5s. for it, whilst you may have to pay to another shop 7s. 6d. for the same article. The defendants send to Mr. Willis for a good fire brigade, and I think their charges are such as may be made by a first-class brigade. And as I have already said, since it does not come as a surprise upon defendants, I cannot say they are extortionate, and they will be allowed.

Mr. WALKER : You will make an order with costs ?

Mr. TAYLOR objected, on the grounds that the charges were extortionate.

Mr. MAKINSON : The costs are not much ?

Mr. WALKER : Only the cost of the summons.

Mr. MAKINSON : I think I cannot. The question that has been in dispute is this £42, as to whether it was a reasonable charge. If there had been no actual damage to the engine, I should have felt inclined to say it was extortionate. The Corporation charge £3. 10s. per hour for each engine, which seems to be a large sum—a monstrous sum—since the utmost the various gentlemen who have been called thought reasonable was £2. 2s. It has, however, been explained that a portion of the charge (£18) was to pay for the damage to the engine. I shall make an order without costs.

It is a most extraordinary thing that nothing was heard about this damage to the engine until the case came into Court. Is it usual for a fire-engine to be damaged to the extent of £18 ? How did the "accident" occur ?

I cannot help thinking that the "Royal" did not make enough of their case. To say that the charges are "known" and have been in force for four years is no answer to the plea that these charges are not warranted by the Act giving powers as to "extraordinary expenses." Then, again, I am informed that the "Royal's" solicitors said they could not appeal against the magistrate's decision because the subject in dispute was a point of fact and monetary amount, not of *law*. Putting aside the point

Brigade Charges—continued.

of law involved in the difference of opinion between the parties as to what the Act really *did* allow (and surely a dispute as to the meaning of an Act is a point of law), has no appeal ever before been fought on questions of fact alone? A *mandamus* might have been tried for, to compel the magistrate to grant an appeal. However, let us be satisfied with the appeal which *was* made in the other case contested by the "Royal" (*see* "Appendix"); and meanwhile, the points involved in the various cases just detailed possess an interest beyond the district governed by the Salford Corporation. The arguments apply equally well to similar charges in other towns.

SHEFFIELD.—No power to charge for attending fires within the borough, but when the Corporation took over the fire engines from the insurance companies in 1869, a number of the offices undertook to contribute a yearly sum towards the cost of maintaining the brigade. The charge for attending fires *outside* the borough is as under :—

For manual engine, not exceeding one hour,	£1. 1s.
„ „ „ exceeding one hour, and upwards,	£2. 2s.
„ reels, one hour and upwards,	15s.
„ superintendent, 3s. first hour, 1s. 6d. per each hour following.	
„ firemen	2s. „ 1s. „ „
Horse hire and additional assistance, actual cost price.	

ST. HELENS.—Brigade formed in 1859, and numbers 26 all told. If the fire is inside the borough, the men are paid by the Corporation out of the rates (although insurance companies sometimes do go out of the way and make a payment). If the brigade goes outside the borough, the charge is—

Superintendent, 4s. first hour, 2s. each following hour.	
Sergeant .. 3s. „ 1s. „ „	
Men .. 2s. „ 1s. „ „	
Use of engine and hose, £2. 2s.	

STOCKPORT.—The brigade consists of 1 superintendent, 1 inspector, 2 branchmen, 9 firemen, 1 steam-engine tender, and 1 stoker=15 all told. The borough has compulsory powers to recover "out-of-pocket expenses" at a fire.

Brigade Charges—continued.

PAY AND ALLOWANCES.

	£	s.	d.	
Inspector	3	15	0	per quarter.
Engineer	0	15	9	„ „
Branchmen	0	12	6	„ „
Firemen	0	10	6	„ „
Stoker	2	10	0	„ „
For attendance on inspection days, 2s. for the day.				
„ „	at fires, 2s. first hour, and 1s. for each following hour.			

SCALE OF CHARGES PAYABLE BY INSURANCE OFFICES.

Superintendent, 5s. per hour the whole time engaged.

Inspector .. 2s. 6d. „ „ „

Engineers .. 2s. for first hour, 1s. for each hour following.

Firemen .. 2s. „ 1s. „ „

Assistants .. 1s. „ 6d. „ „

The steam fire-engine to be charged at the rate of £5 per hour.

If not in actual use, half that sum.

It may be here mentioned that, some time ago, a firm of assessors had occasion to object to an item of £25 charged by the Stockport authorities for the services of the steam fire-engine for five hours at a fire *within* the borough. The authorities alleged that in the limitation, by their special Act, of their compulsory powers to the enforcement of “extraordinary” (*i.e.*, out-of-pocket) expenses only, reference was made to a manual engine only, the steamer not having been introduced until some time afterwards. Ultimately a compromise of the item was agreed to—“without prejudice” on either side—the municipality protesting at same time. From all of which it seems clear to me that the Stockport authorities cannot legally charge for the use of their steamer at fires within the borough, the almost universal experience being that a municipality never compromises any claim which it can legally enforce.

Charges ADDITIONAL to the above when fire is beyond borough boundary—Steamer, £10 per hour; if not in actual use, £5 per hour; manual engine, £3, and £1 per pair of horses for a distance of three miles, 10s. additional for every mile above three. Not more than 1 engine and 6 firemen to be absent from the borough at one time.

Brigade Charges—continued.

STOURBRIDGE.—The brigade is entirely supported by voluntary contributions—the “Lancashire” and “Norwich Union” figuring as life members with subscriptions of £5. 5s. each, whilst the “Mutual” has given a donation of £2. 2s. The active force consists of 1 captain, 1 lieutenant, 1 superintendent, 1 surgeon, and 13 firemen=17 men all told. The Town's Commissioners (who purchased fire-extinguishing plant under the facultative powers given them by the Public Health Act, 1875), have handed over their appliances to the brigade, but (with the exception of the manual engine, which belongs to an insurance company) these are only available for use on the mains in the town.

SCALE OF CHARGES.

- Use of steam fire-engine, to non-subscribers, £5. 5s.; subscribers, nil.
- If steamer be called to a fire but not required, £2. 2s.
- Use of manual engine, to non-subscribers, £2. 2s.; subscribers, nil.
- If called out, but not required, £1. 1s.
- Use of hose, reel, and appliances, to non-subscribers, £1. 1s.; subscribers, nil.
- If hose, &c., called out, but not required, to non-subscribers, 10s. 6d.; subscribers, nil.
- Members of brigade, 5s. each (to cover wear and tear of uniform, accoutrements, &c., not as wages).
- For each horse hired, £1. 1s.

SUNDERLAND.—The brigade consists of 26 officers and constables, all members of the police force, and the chief constable—who is also chief of the brigade. The brigade is maintained by the Corporation, who pay the men out of the rates (in addition to their wages as constables), according to the following scale :—

Inspectors,	2s.	first hour,	and	1s.	each per each hour following.
Captains,	2s.	„	„	9d.	„ „ „
Firemen,	1s. 6d.	„	„	6d.	„ „ „

The chief constable informs me that the insurance offices generally refuse to pay anything at all when he sends in a bill founded on above scale. I can only say that, to object to pass such extremely moderate charges as the above (although the principle of such objection is undoubtedly correct, *when impartially and consistently carried out*), appears to me like “straining at a gnat and swallowing a camel.”

Brigade Charges—continued.

WAKEFIELD.—The following scale applies to fires outside the borough :—

	£	s.	d.
Horses and men with engine	6	0	0
Use of engine and appliances	5	0	0
Captain	0	18	0
Pumpers and assistants	0	2	6 each.

WOLVERHAMPTON.—The brigade consists of a chief superintendent, 1 superintendent (a police inspector), and 10 firemen. The firemen receive £5 a-year each for drilling, taking charge of appliances, &c. They are not police constables, and are mostly artizans.

CHARGES.

(Paid by insurance offices, whether the property is inside or outside the borough.)

- Firemen, 2s. each for turn out, and 1s. per hour actually engaged.
- 1 corporal, 1s. additional to above charges.
- 1 superintendent, 2s. 6d. additional to charge for firemen.
- 1 chief superintendent (chief constable), no charge in the borough.
- " " " " 10s. 6d. to £1. 1s. for outside fires.
- No charge for appliances inside borough (except charge for "extincteurs"), £1. 1s. to £3. 3s. for engine sent to outside fires.

ADDITIONAL INFORMATION REGARDING VOLUNTEER BRIGADES.

(Reprinted from the Fireman of 1st December, 1882).

The question of charges for attendance at fires, one of considerable importance to Fire Brigades, especially to unpaid brigades in rural districts, which are supported none too well by local authorities or public subscription, has lately been forcing its way to the front in a very decided fashion. Wherever the matter has gone into the Courts of Law the decision has generally been favourable to the brigade suing, provided a responsible person has demanded the services of the brigade; the scale of charges has been duly advertised; and the plaint is made at the suit of one or more members of the brigade, suing as trustees for the rest. For the guidance of those who are practically interested in this subject, it may be as well to mention some decisions that have been given by legal authorities during the last few years.

In a case *Crouch v. Blunden*, tried before the Worthing County Court Judge, in March, 1881 (see Vol. IV., *Fireman*, Page 224), the chief points in dispute were whether the Worthing Volunteer Fire Brigade held themselves out to the public as rendering services voluntarily and without reward, whether the brigade had attended the fire in question at the request of the defendant (the owner of the property), whether the amount charged was reasonable, and whether the Insurance Company interested, or the owner of the property was liable for the amount. The decision was in favour of the plaintiffs upon all

Brigade Charges—continued.

issues. It is to be noticed that the Judge in this case stated, that if it had been proved that the brigade held themselves out to the public as rendering services voluntarily, that would preclude them from recovering for services so performed, but it was held that the use of the word "Volunteer" was not in itself sufficient proof that they did so represent themselves. It was also decided that the owner of the property was the proper person to be sued, and not the Insurance Company covering the property.

This latter question was also decided by Mr. Lefroy, Judge of the Wareham County Court, in a case *Hordle* and another *v. Drew*, reported on Page 12, Volume IV., *Fireman* for July, 1880. The action was brought by two firemen on behalf of the rest, and the only point in dispute was whether the Insurance Company or the owner of the damaged property should be sued. The decision was similar to that just referred to, and the plaintiffs recovered accordingly.

In the case, *Ashford Fire Engine Association v. Richardson* (see Pages 54, 68 and 89, Volume III., *Fireman* for September, November and December, 1879), the only point in dispute was whether the members of the Ashford Fire Brigade held themselves out to the public as rendering gratuitous services. It was not denied that the defendant had telegraphed for the attendance of the brigade; but the contention on his part was that the telegrams meant "here is a fire; if you like to come, come to it." This contention the Judge (Mr. George Russell) upheld, and considering that the Ashford Fire Brigade held themselves out to the public as rendering their services gratuitously, he dismissed the action. Notice of appeal was given, and we have always regretted that the appeal was not prosecuted; the matter was compromised, we believe, with the Insurance Company interested. It will be seen, however, that the decision did not effect the *Worthing* case, which came on afterwards, and had an exactly opposite result.

A totally different point was decided by the Bradford County Court Judge (Mr. W. T. S. Daniel, Q.C.) and on appeal by Justices Denman and Lindley, sitting in Banco at the Court of Common Pleas (see *Fireman*, Vol. IV., pages 13 and 117), in the case of *Spencer and Others v. Stillings*. The point of law in dispute was whether the plaintiffs, as members of the brigade (being an unincorporated company) could sue on behalf of the brigade. The County Court Judge decided that the action could be maintained, but stated a special case for the opinion of the Court above. On appeal, Justice Denman delivered judgment, upholding the decision of the County Court, and stating that it was perfectly clear that the plaintiffs, either alone or jointly, had the right to sue as trustees for their fellows; and Justice Lindley concurring, the appeal was dismissed with costs.

In an action tried by Mr. V. Lushington, Q.C., at Guildford, the Guildford Volunteer Fire Brigade *v. Bartholomew* (see *Fireman*, Vol. II., page 7, for June, 1878), an objection was made that the brigade could not sue as a body, and the Judge amended the title of the cause so as to bring it in accordance with the law subsequently authoritatively laid down by the Court of Common Pleas. The only other matter of general interest in this cause, was that his Honour decided that the printed scale of charges having been hung up at the engine-house and sent round to the insurance agents in the town, was binding upon the Court. He considered that the property owners of the town might reasonably be supposed to be acquainted with the document.

There have been many other cases of this kind taken into Court during the last two or three years, the dispute generally referring to the amount, and not

Brigade Charges—*continued.*

to the validity of the charge. Wherever it has been proved that the scale of charges has been circulated in the district, and has obtained publicity for a length of time, the amount has generally been recovered. The foregoing, however, embody the chief points decided recently, and from them we learn that a properly-constituted brigade can recover their charges for attendance at fires under the following circumstances :—

- I. The brigade must have been sent for by the owner of the property or his responsible agent ; and the suit must be instituted against the owner of the property even if it is insured ; not against the insurance company.
- II. The scale of charges must be known in the district, and it must be made clear that the members of the brigade will make a charge if their attendance is requested. In confirmation of this we may quote from a letter sent us last month by the Superintendent of the Rochester Fire Brigade—We have lately advertised as follows, by the advice of our solicitor, who states this will enable us to recover claims in the County Court in future :—

“ CITY OF ROCHESTER VOLUNTEER FIRE BRIGADE.—This Brigade holds itself ready to attend Fires in the Country, but notice is hereby given that the members can only give their services on condition that the person or persons sending for the engine, hold themselves responsible for the under-mentioned charges.”

Here follow the charges as per scale.

We should advise, that with the object of avoiding all dispute on this head, it would be well to drop the use of the word “Volunteer.”

- III. That the suit must be instituted by one or more members of the brigade as trustees for the rest ; not by the brigade as a body ; because in the latter case if the Court refuses to amend the plaint, the action will be liable to nonsuit, and a new suit will have to be commenced. This refers only to cases in which a brigade not supported out of the rates, is plaintiff in the action. Where a paid Fire Brigade is maintained by the Corporation, which has allowed the Brigade to go out of the town, the Corporation will of course take action to recover the amount of its charge. Also, if the members of the brigade are really or nominally servants of a Local Board or Urban Authority, the charge will be recovered by the Board or Urban Authority, and that part of it which is due to the members of the brigade will be paid over to them.

(Notwithstanding the remarks of the *Fireman*, I consider the ASHFORD decision represents sounder law than the other cases quoted.—D. A. C.)

For further particulars regarding Brigade powers and charges, see Appendix.

Buffaloes.—Skips (the baskets, in cotton mills, in which the yarn is placed) made of Buffalo skins.

Building Damage.—When claims for small amounts are sent in to district managers and agents, in the form of a short statement setting forth that damage to the extent of, say £10 (for example), has been done, and that a tradesman's tender is enclosed, offering to "make good all damage" for so much, the agent should visit the place, and, after examination, should ask the insured to get the tradesman's estimate amended so as to show exact quantities and details of every item of repair requiring to be executed. And he must satisfy himself that the office is not being called upon to pay for more than the *actual reinstatement* of the damaged portion as it was before the fire. Thus, for example, if the cause of the fire were the charring of a wooden supporting beam which ran through or at the back of the flue, the tradesman will, most probably, advise that, in reconstructing, an iron support or strengthening beam be substituted for the former wooden one. Such an alteration is very proper and necessary; but, if the tradesman shall require (as is most probable) to charge extra for putting in iron instead of wood, the said "extra" must come out of the *insured's* pocket—not out of the pocket of the company. An insurance policy is not supposed to bring about an *improvement* (when it matures through a fire) either in a man's condition or in a man's property: it is purely a contract of *indemnity*.

Bunt.—In the linen-manufacturing trade, a "bunt" is a "piece" (of towelling and such like) as it comes off the Jacquard weaving loom.

Burlaps.—Coarse linen goods.

Burling.—The task of picking out (either by machine labor or by means of tweezers wielded by women workers) from the already woven fabric all knotty excrescences, white linty threads, dirt, &c.

Burring.—Taking the knots or "lumpy" entanglements out of the wool previous to carding. The machine used for this purpose is sometimes called a "moating" or "moiting" machine. Burring is now very often done by a *chemical* in preference to a mechanical agency.

C.

Calico Printers.—In the Glasgow trade, Calico Printers generally give written agreements to their customers, undertaking to hold their goods covered from fire damage whilst in their possession. This does not quite amount to a recognized custom, however. Most large firms consider themselves liable for all goods in their hands ; but, in dealing with smaller houses, the merchants get undertakings where they can, and insure when they cannot get such, or where they have any doubt as to the printer's stability. Insurance companies, therefore, whose policies are really meant to provide against the calico printer's failing to make good his customer's stuff, should well satisfy themselves that their insurer is really not going to recover from his printer before they part with their money.

Candroy.—In Lancashire Bleach Works, this is the name given to the spreading machine on which the goods, after passing through the process of being squeezed for the purpose of having the liquor gathered in the earlier processes discharged from them, are laid out to be pulled straight.

Cantoon.—A superior kind of fustian, with a satiny surface.

Card Clothing.—When a fire in a card-room occurs, the disputes and differences of opinion between claimants and assessors as to the value of the cards at time of fire, and as to what allowance is to be made for depreciation in clothing, are only too numerous. In view of this, it is well to bear in mind that card clothing which has done service in cotton mills, and there lost much of its length by grinding, is often sought after by manufacturers of certain kinds of woollen goods, and manufacturers of rugs, blankets, cotton swan's-downs, &c., for the purpose of raising, by its means, the required nap or fur on the surface of the material (*see* "Raising").

Carriers.—(See “Public Carriers, and their Insurable interests”).

Castor Oil as a Preservative for Leather Belting, Fire Hose, &c.—Castor oil is much better to soften and redeem old leather than any other oil known. In Harrisburg, Pennsylvania, the old leather hose of some of the fire companies was greased with it, and found to become almost as soft and flexible as new leather. Leather belts for transmitting motion in machinery will usually last from three to five years, according to the wear and tear they are exposed to; when greased with castor oil it is said they will last ten years or more, as they always remain flexible and do not crack. Besides this advantage, castor oil will prevent slipping, so that a belt three inches wide, impregnated with it, will be equal to a belt four inches and a half wide without castor oil.

Chlorate of Potash.—On the 19th of April, 1882, a severe explosion occurred at the store of a colour manufacturer at Castleton, near Rochdale. The newspapers stated at the time that the accident arose through a cask containing “chlorate of potash” (and hooped with iron hoops, as is usual), coming in contact with a wall whilst in course of removal, the iron hoops striking fire. The cask exploded with terrific force, the entire building being blown to the ground, and the proprietor and his son being buried in the ruins. The wholesale chemist, who had only that day sent on the cask to the colour works, denied that it contained anything else but chlorate of potash solely, which, of itself, and unmixed with other ingredients, is not an explosive. At the inquest, it was proved by Capt. Crudill, Government Inspector of Explosives, that the substance which exploded was a mixture of chlorate of potash and yellow prussiate of potash, but there was no evidence to show why these two substances had been mixed by the proprietor of the colour works. In Ure’s “Dictionary of the Arts, Manufactures, &c.,” it is stated that chlorate of potash is an active oxidizing agent, burning up briskly with a crackling sound like nitre, if placed on red-hot

cinders. When ground down or mixed with sulphur or phosphorus, it detonates with great violence, not without danger to the hands of the operator.

The following report, taken from the Australian supplement to the *Chemist and Druggist*, may serve as a caution to experimenters and manufacturers :—

“A shocking occurrence took place at Wellington (N.Z.) on December 21, 1881, by which a lady was literally blown to pieces and a building partially wrecked. The facts are these :—At the shop of Mr. Barraud, chemist, Lambton Quay, some blue fire was in the course of preparation for use at the theatre. On testing a small quantity of the mixture, it was found dangerously explosive, too much chlorate of potash having been inadvertently used in the composition. Accordingly the shop assistant took it out into the back yard, and began to destroy it by slow combustion. He had occasion to leave for an instant, and before he could return his wife happened to go into the yard, and, seeing chemicals on fire, at once threw a bucket of water on the burning mass. A terrific explosion immediately took place, which shook the whole city, and was heard at a distance of some miles. The unfortunate woman received the full force of the shock, and was frightfully mutilated.”

Cholesterin.—A non-saponifiable fat, found largely in the secretion's lodging in undressed wool.

Clockmaker's Work.—An old-fashioned term for mule-spinning frames and their gearing. Occasionally met with in policies drafted many years back.

Clothiers (wholesale).—In many cases it is considered advisable to insert the following warranty :—

“Warranted that no waterproofing be done, or oil-skin clothes made or kept therein.”

Coachmakers' Black Varnish is composed of amber, drying linseed oil, asphaltum, resin, and a little oil of turpentine. In surveying coach-building risks, it should be ascertained whether this concoction is made up or prepared in any way on the premises.

Commission.—A solicitor introduced a client to an insurance company, and received a commission from the company for so doing. The judge of the City of London Court decided that the solicitor is accountable to his client for the amount of such commission. See “Finance Chronicle,” 2 January, 1882. This case is known as “Copp v. Lynch.”

Concurrency of Wording and Range (*see* "Range of Policies").

Conditioning Apparatus.—An arrangement of drying cylinders and purifiers, whereby yarn goods are freed from the moisture which weights them, and otherwise tested as to their "condition."

Contract of Insurance.—

"Every policy should be written as though a loss were to be adjusted under its terms on the morrow. The insurance agent should be thoroughly advised in the writing of forms of policies, and familiar with all the exceptions, restrictions, and conditions of the contract. He should inquire of the assured touching those points that would affect the final settlement, such as ownerships, encumbrances, title, occupancy, and other insurances, and warn him as to restricted articles for light or sale, and notify him as to the non-insurable character of certain articles, and restrictions as to others, such as plate-glass and fresco work."—JOHN J. COVINGTON, *of the Cincinnati Adjustment Company.*

In "*Collett v. Morrison*," the Vice-Chancellor remarked :—

"This case appears to me fully to establish that, if there be an agreement* for a policy in a particular form, and the policy be drawn up by the office in a different form, varying the right of the party assured, a Court of Equity will interfere and deal with the case upon the footing of the agreement and not of the policy."

A clearer and more workable interpretation of the law is, however, to be found in the remarks of Lord MacLaren (the Lord Ordinary) in the Scotch case of "*Macfarlane v. The Mutual Fire*," heard at Edinburgh in 1881. Macfarlane had moved to set aside a previous judgment of the Court in favour of the "*Mutual*," by seeking to have the whole matter referred back to oath of a certain official of the company, as to certain verbal arrangements and agreements with regard to the insurance which Macfarlane alleged had been entered into between the said official and himself. Lord MacLaren said :—

"To a large extent the engagements of joint-stock companies are constituted by writing. The written contract is a protection to the company against error or collusion on the part of its agents; and it would, I think, be an unfortunate state of the law which should allow such contracts to be set aside, or explained away by the evidence of the agents concerned in their

* Does his lordship refer to a *written* agreement, or to *verbal* arrangements made with the agent by the proposer?

preparation. I do not, of course, mean to suggest that there is any such risk in the present case. I am only considering the possible consequences of an indefinite relaxation of the rule by which a written contract is held to regulate the obligations of the parties, *to the exclusion of all other evidence.*"

Lest anyone should flatter himself that, in the above terse paragraph, he has found an unanswerable argument in favour of the very natural belief that the carefully-chosen words of a written contract will *always* be accredited with their plain English value when laid before an English judge, I subjoin a newspaper account of the case "*Williams v. Bignold*" (Norwich Union Fire Assurance Company), tried before Mr. Justice Manisty, in the Queen's Bench Division, on 23 June, 1882 :—

In the Queen's Bench Division on Friday, before Mr. Justice Manisty and a special jury, the hearing of the case of *Williams v. Bignold*, Norwich Union Fire Insurance Society, was resumed. Mr. Ambrose, Q. C., and Mr. G. B. Hughes, appeared for the plaintiffs; and Mr. Cohen, Q. C., and Mr. Channell for the defendants. The plaintiffs, who are the surviving partners of the late firm of J. E. Williams & Co., Manchester, had effected a policy of insurance for £1,000, and their premises in Teignmouth-street, Collyhurst-street, Manchester, were destroyed by fire. The company refused to pay the amount claimed, on the ground that the plaintiffs had used benzine, hazardous goods, contrary to the stipulations of the policy. The Jury, in reply to His Lordship (Mr. Justice Manisty), said they found that benzine was not a very hazardous article, that it was generally known in May, 1879, that it was used in the process of making paint, that it was generally used at that time by mixers of paint, that the use of benzine by the plaintiffs was a material circumstance to be mentioned with reference to the insurance, that the defendants' surveyor was told that it was used, that rose oil was a hazardous article, and that Brunswick black, which had also been stored on the premises, was not a varnish.

His Lordship in giving judgment, said that the jury had found that the use of benzine was disclosed, and assuming that finding to be correct, as he was disposed to feel, that disposed of the principal matter in the case. Having regard to all the circumstances of the case, the use of Brunswick black and rose oil (the introduction of which in the defence had apparently been brought up as an afterthought), he thought that judgment must be given for the plaintiffs.

What is the lesson to be gathered from the foregoing case? Here is a plain warranty or condition excluding benzine. It is part of the written contract that benzine shall *not* be used, but Mr. Justice Manisty turns to the jury, and says: "Do you consider benzine a *very* hazardous article?" They reply: "Well, no—not very!" Whereupon Mr. Justice Manisty proceeds to tear the written

contract to pieces, and to rely upon verbal evidence! The only consolation for the bewildered insurance man, struggling against the temptation to blaspheme, is that, although Mr. Justice Manisty has given some extraordinary decisions in insurance cases, at different times, they have generally been reversed on appeal.

Coquilla Nuts.—The fruit of a Brazilian palm, used in manufacturing the knobs of umbrellas and parasols.

Corn Mills.—(See "Explosions" and "Flour Milling").

Cosmos Fibre.—This composite material is a Continental invention, and is being pushed as a "cheapening" ingredient to be mixed up with wool. It is made from various vegetable substances, chiefly flax, hemp, ramie and common nettle, finely disintegrated and mixed. Insurance men should carefully watch the progress in the adoption of this fibre, as, on the face of it, it appears highly dangerous, and its inflammability is increased by being coloured black in order to suit the kind of "wool" required.

Cost Price.—A firm producing a speciality, composed of various ingredients, are entitled to include, in their estimate of the "Cost Price" of their speciality, the charge for railway or other carriage which they may have to pay in order to bring from a distance one or other of the ingredients necessary to make up the said speciality, which they cannot purchase in open market near at hand, and which, by reason of the destruction of a particular portion of their plant by fire, they are temporarily precluded from producing or working up at home. That is, if a manufacturer has to go here and there to pick up the different parts of his speciality, which, before his fire, he had been able to turn out to his customers entirely from his own works, the measure of his loss will not only be the cost of the raw materials at the market price of the day, but also the sum which he expends in bringing these raw commodities (assuming that they cannot be bought in open market near his own door) to his manufactory from a distance.—(See also "INDEMNIFICATION").

Covering Note.—It is worth urging upon insurance companies that, in discussing a claim under a covering note, they would be in a much stronger position if they had the conditions of their policies printed *in full* on the back of the covering note. The question has been raised by legal authorities (although never taken into Court) whether a document should not bear upon the face of it all the conditions *in full* under which it was issued. Suppose a company wishes to enforce arbitration under a covering note, the insured may plead that he never was insured before—never saw a fire policy in his life—knew nothing of the customs of insurance—and could not, therefore, be a party to a “condition precedent,” by which all disputes were to be submitted to arbitration, inasmuch as he knew literally nothing at all of the existence of such a particular condition, but only knew that, inasmuch as his covering note stated that he was to be protected “*subject to the usual conditions,*” conditions of *some sort* existed somewhere else. When it is borne in mind that judges ere now have set aside a special condition written in full in the body of the policy, on the ground that the insured had established his ignorance of its true purport, does it not seem still more likely that some day a judge will rule that an insured could know nothing of the existence of a condition which he had no opportunity or facility afforded him of becoming acquainted with?

A “Covering Note,” or a “Deposit Receipt,” with the necessary penny stamp, is a “policy” within the meaning of the Stamp Act of 1870. But, as these “Notes” generally run for only thirty days, a new “Protection Note” ought to be issued at the end of the thirty days, if the policy is still undrafted, or if it cannot be delivered for a few days longer. The reason of this is that, by the Stamp Act of 1870, a penalty of £20 attaches to the non-issue of a policy within thirty days of the receipt or crediting of any premium on account thereof. The issue of a covering note which expires and leaves a balance of unearned premium in the hands of the insurance company, is justifiable only when, after survey, the company, has intimated that it

cannot extend its protection beyond the thirty days ; but where the company is content with the risk, yet delays the issue of its policy after the covering note has expired, the law would press for its fine of £20 if it knew of the circumstance.

Creas.—Linen goods made in lengths either of 32 yds. by 27 in., or else 64 yds. by 31 in.

Crop.—The term which the leather dresser or dealer applies to an entire hide.

Cuttling.—Folding woollen cloth for the warehouses.

D.

Damage by Fire in Adjoining Premises.—Suppose premises No. 1 are insured in office A, and premises No. 2 in office B. No. 1 is eventually burned out, and some of the *debris* falls upon No. 2 and damages the roof, windows, &c. Office B pays for such consequential damage to No. 2. But suppose the loss on No. 1 premises takes a long time to adjust, and that office A employs an assessor, who consults an architect as to what part of the ruins should be taken down and what part left standing. Suppose, further, that a portion of a wall overlooking premises No. 2 is allowed to stand, under the supposition that it is safe, but that it eventually falls upon No. 2, breaking through the roof a second time, and causing a fire, owing to the upsetting of a stove, or something of that kind. Who pays in this case? Undoubtedly office A, who, in the person of their assessor, is in charge of building No. 1, pending the adjustment of the loss. It is true that office A does not insure premises No. 2, but, inasmuch as the loss on No. 1 is not yet settled, office A stands in the shoes of its insured, and is responsible for all damage arising from partly-consumed walls being left in an unsafe condition. When the wall fell for the first time, immediately after the fire, they could not be held responsible, because it was not within human power to prevent the accident ; but its fall a *second* time, after survey by the

person adjusting the loss for them, must entail all its consequences upon them.

From *Police and Fire*, May 6th, 1882 :—

A case of an unusual kind has been tried in the Queen's Bench division. The plaintiff occupied a house in Arundel-gardens, Bayswater, and the defendant one adjoining. On the evening of the 21st of last July, the defendant's chimney caught fire. On the same evening a fire broke out in the plaintiff's house, on the drawing-room floor, which floor was damaged by fire. It appeared that the houses were built about 12 years ago by the same owner, and that a half-brick had been left out in the flue just under the joists of the plaintiff's drawing-room. The fire had made its way through the aperture from the defendant's chimney to the plaintiff's floor. When, however, it appeared that the aperture was in the plaintiff's wall, and that the defendant could not by reasonable examination have discovered it, judgment was entered for the defendant.

Damask.—Cotton is now extensively used in this manufacture. The chief seats of the trade are the town and neighbourhood of Dunfermline, and at Lisburn and Ardoyne, near Belfast.

Damaskeening.—The art of ornamenting iron, steel, &c., by making incisions upon its surface, and filling them up with gold and silver wire. It is chiefly used in enchasing sword-blades, guards, locks of pistols, &c., and is partly mosaic work, partly engraving, and partly carving. A cheaper way of damaskeening is to etch the pattern on the steel, and then to deposit gold or silver into the lines by the electrotype processes.

Dammar Gum, or Dammara Resin.—A pale yellow resin, which, dissolved in oil of turpentine, is now much used in the preparation of certain varnishes, notably for the glazing of maps and the like.

Damping Machine (for textiles).—In connection with the finishing of cotton and woollen goods, the damping apparatus consists commonly of a cylindrical brush, which, revolving rapidly and dipping somewhat at its lower side into a cistern of water, lifts up some of the latter, and projects it in the form of spray on the cloth, which passes above the brush.

Dapicho.—A spongy kind of caoutchouc

Dead Oil.—The oil which is obtained from the fractional distillation of coal tar, after the light oil or naphtha has passed over.

Deckle.—In paper-making, a thin wooden frame which fits on the mould in which the paper-pulp is placed.

Deflagrator.—A galvanic instrument, used in producing a rapid and powerful combustion. When metals are burnt by electricity, they are said to undergo deflagration.

Degerming.—In the milling trade, this term is used to express the process of separating the germs from the wheat. Formerly the general practice has been to grind or crush the grain between the stones into a mass more or less finely divided, and afterwards to separate the bran and offal from the flour by sifting. Now, however, by means of what is known as the "Gradual Reduction" process, a purer flour can be obtained, and the germs prevented from being mixed up with the flour; the former being saleable as a nutritious cattle-food, &c., under the title of "Germ Meal." (For other branches of the same subject, see "Explosions" and "Flour Milling.")

Depreciation of Machinery, &c.—Every assessor knows to his cost what wearisome hours have to be spent in time-worn arguments ere a claimant will admit any allowance for depreciation in adjusting his loss on machinery. It appears, however (as a perusal of the following extract from the "Textile Manufacturer," of January, 1882, will show), that mill-owners are fully alive to the fairness of taking "depreciation" into account when it is a question of a little sum in arithmetic with the Income-Tax Commissioners. The extract runs as follows:—

Now that the question of depreciation of machinery is being agitated, a few facts appertaining to Oldham may be of interest. It would appear that depreciation is allowed for on a different scale in some of the manufacturing towns in east and north-east Lancashire from that of Oldham. What that town had to contend against was that up to 1877 the amount written off for depreciation in the balance-sheets of limited companies was treated as profit, and income-tax was charged thereon. Mr. Sanderson, a Government official, having paid a visit to Oldham in the earlier part of 1878, was at once convinced of the

injustice of this practice, and, after a consultation with the committee of the Masters' Association, he agreed to do what he could to have the law altered; and accordingly, in May of that year, a short section was put into the Act of Parliament regulating the levying of income-tax, and giving power to the Income-Tax Commissioners to allow for depreciation of machinery and plant by usage. Buildings, however,—that is to say, bricks and mortar,—were exempted from this arrangement, and the same amount was allowed for in the income-tax as was stated in the balance-sheets, less the depreciation on the value of the buildings. The rate of depreciation in Oldham was originally fixed, it is believed, by the late Mr. John Platt, M.P., the rate being $7\frac{1}{2}$ per cent. on the machinery and $2\frac{1}{2}$ per cent. on the fixtures, including the buildings, or what may be called the freehold. This scale is still adhered to by private firms and limited companies, the life of a machine being fixed at fourteen years. The Income-Tax Commissioners in the Oldham district, who are for the most part practical men, have admitted the justice of this rate of depreciation, and it consequently happens that there is seldom an appeal against the amount at which the various mills are rated.

(See also under "INDEMNIFICATION").

Denmark Satin.—A stout worsted stuff, used for ladies' shoes.

Dextrin.—A kind of gum, extracted from starch.

Diachromatised Wood.—Mr. Henry Chalk Webb, the inventor, has perfected a process of "diachromatising" wood in such a manner that the pattern or stain applied to the surface of the timber penetrates its entire thickness, the thickness of the slabs usually being from one to one-and-a-quarter inches thick. When these slabs are employed in place of parquetry and ordinary tiling, it is of no consequence how much they may become worn, as the surfaces always retain intact the original patterns, which possess all the distinctiveness of design to be found in inlaid wood-work. The diachromatised wood is applicable to an endless variety of decorative and other purposes—dados, wall-panelling, ceilings, cornices, vases, furniture, and ornamental wood-work generally.

Difference in Wording of Policies (see "Range").

Dipping.—The process of brightening ornamental brass-work, by plunging it into a bath, which consists of pure nitric acid, called in the trade *Dipping aqua fortis*. The work is afterwards put into dry beech or box-wood

sawdust, and rubbed until it is quite dry, after which it is burnished and lacquered.

Dippel's Animal Oil.—A volatile oil, obtained in the manufacture of bone black.

Distillation of Wood.—The products likely to be encountered by insurance men, and which are obtained by this process, are, principally—acetic acid, wood spirit or methylic alcohol, acetone, xylite, paraffine, creosote, ammonia, and some kinds of benzole.

Dividends.—From the *Leeds Mercury*, Friday, 28 July, 1882 :—

Though the important decision given by the Court of Appeal on Wednesday, *in re* The Exchange Banking Company, is not absolutely final, it is doubtful whether it will be disturbed even should the appellants carry it to the House of Lords. At the same time, the judgment given by the Master of the Rolls, and concurred in by Lords Justices Brett and Cotton, involves such serious issues, as affecting directors of public companies, that we shall not be surprised to learn that this further stage in the case has been resolved upon. The question raised before the Court of Appeal was whether the official liquidator of the company was entitled to recover from the directors certain sums, amounting in the gross to more than £3,000, which they had divided amongst the shareholders between 1873 and 1878 as dividends, no profits having been made by the company during this period. Vice-Chancellor Bacon, before whom the case came in April, held that the directors were liable to the creditors for these sums, and the Master of the Rolls gave judgment to the same effect on Wednesday. The payment of dividends under the circumstances stated was treated, in fact, as a return of capital to the shareholders, and such an act the Court construed as a violation of the law and of the rights of creditors. Inasmuch as the payment of dividends when no profits had been made was really a reduction of capital, it was a course which could not be taken without the sanction of the Court, as authorised by the Act of 1867. "But," said the Master of the Rolls, "there was another reason why it could not be done. There was either an implied contract with the creditors, or a representation made to them, upon which they acted, and on the faith of this implied contract or representation they gave credit to the company. There was no other debtor to them; the impalpable corporation had no property but its capital. The creditor trusted to the capital or to the company, on the faith of the implied contract or representation as to the amount of the capital, it did not matter which it was called." The effect of this judgment, unless it should be upset, cannot fail to operate as a check upon a practice which, though it may have the sanction of custom, is a most objectionable one. The payment of dividends out of capital is not only objectionable; it is immoral, as it is a direct fraud alike upon shareholders and creditors, and it is satisfactory to know that the law does not sanction it.

Doffer.—In throstle spinning, the boy or girl who "doffs" or "takes off" the bobbins when filled with yarn;

also, the name given to the finishing card or "stripper," in cotton mills.

Dogwood is used by watchmakers and opticians, and also for the manufacture of toothpicks.

Dornock.—A kind of linen, worked in patterns, but plainer and cheaper than damask or diaper.

Dowlas.—Coarse linen.

Drysalters.—The following warranty should always be used in writing upon risks of this class :—

"Warranted that all nitrate of soda and nitrate of potash stored therein be always kept on a flagged floor and away from other goods."

Dunging.—Cotton goods, in calico printing, are subjected to a bath of cow-dung and hot water.

Dutch Rush.—A rush imported from Holland, and the dried stems of which are used in polishing wood and metal.

Dyer's Responsibility.—It is the "custom of the trade" for the dyer to be responsible for *yarns*, but not for *silk, cloth, or muslin* goods (*see, however, "Goods in Trust"*). *Yarns in the white*, which the owners insure as such, may also be insured by the *dyer*, but for the difference only between the value of such goods when they came to him in the white and their increased value (owing to added cost of dyeing) at time of fire. The dyer insures his *expenditure* (not profit) on such yarns.

It is always advisable to insert the following warranty in all policies written on dyer's stock :—

"This insurance shall not extend to cover any loss or damage in respect of customers' goods which can be recovered by such customers under policies effected by themselves; nor shall this insurance cover any such customers' goods in the hands of the insured under this policy unless the latter shall have, previous to the issue of this policy, signed an agreement with his customer or customers to indemnify them for any goods of theirs destroyed or injured by fire whilst under his charge in the building or buildings herein referred to. When such an agreement exists, the same must be produced at time of loss."

Dyewood Grinding.—Surveyors should enquire whether Myrobalons are ground, and report accordingly (*see "Myrobalons"*).

Dwelling-house Insurances: Tenant's interest in Painting and Papering.—In some parts of Yorkshire (chiefly the Huddersfield district), and in certain other districts as well, it is the custom for all classes of tenants to paint and paper their house at their own expense, and, should a fire occur, the landlord will not claim for paper and paint damage under his policy. The tenant naturally, therefore, falls back upon *his* office (which insures his furniture under the ordinary wording), and generally, after some demur, the office in question, which perhaps has never before heard of this peculiar custom, pays the item "*ex gratia*." To prevent misunderstandings and vexatious correspondence, the agent, who must know whether such a custom prevails in his district, should, if he has ascertained that the tenant pays for papering and painting, instruct his head office to put a specific item into the policy to cover such, and worded somewhat as follows :—

"On wall paper, and paint expended on the doors, wainscottings and other woodwork of the above dwelling-house, as his—the tenant's—interest in such papering and painting may appear."

E.

Electric Lighting (Fire Risk of).—The following rules and regulations for the prevention of fire risks arising from electric lighting have been recommended by the Council of the Society of Telegraph Engineers and of Electricians, in accordance with the report of the committee appointed by them on May 11th, 1882, to consider the subject :—

The members of the committee were—Professor W. G. Adams, F.R.S., vice-president ; Sir Charles T. Bright, T. Russell Crampton, R. E. Crompton, W. Crookes, F.R.S., Warren De la Rue, D.C.L., F.R.S., Professor G. C. Foster, F.R.S., past-president ; Edward Graves, J. E. H. Gordon, Dr. J. Hopkinson, F.R.S., Professor D. E. Hughes, F.R.S., vice-president ; W. H. Preece, F.R.S., past-president ; Alexander Siemens, C. E. Spagnoletti, vice-president ; James N. Shoolbred, Augustus Stroh, Sir Wm. Thompson, F.R.S., past-president ; Lieutenant-Colonel C. E. Webber, R.E., president.

These rules and regulations are drawn up not only for the guidance and instruction of those who have electric lighting apparatus installed on their premises, but for the reduction to a minimum of those risks of fire which are inherent to every system of artificial illumination. The chief dangers of every

new application of electricity arise mainly from ignorance and inexperience on the part of those who supply and fit up the requisite plant. The difficulties that beset the electrical engineer are chiefly internal and invisible, and they can only be effectually guarded against by "testing" or probing with electric currents. They depend chiefly on leakage, undue resistance in the conductor, and bad joints, which lead to waste of energy and the production of heat. These defects can only be detected by measuring, by means of special apparatus, the currents that are, either ordinarily or for the purpose of testing, passed through the circuit. Bare or exposed conductors should always be within visual inspection, since the accidental falling on to, or the thoughtless placing of other conducting bodies upon, such conductors might lead to "short circuiting," or the sudden generation of heat due to a powerful current of electricity in conductors too small to carry it. It cannot be too strongly urged, that among the chief enemies to be guarded against are the presence of moisture and the use of "earth" as part of the circuit. Moisture leads to loss of current and to the destruction of the conductor by electrolytic corrosion, and the injudicious use of "earth" as a part of a circuit tends to magnify every other source of difficulty and danger. The chief element of safety is the employment of skilled and experienced electricians to supervise the work.

I. THE DYNAMO MACHINE.

1. The dynamo machine should be fixed in a dry place.
2. It should not be exposed to dust or flyings.
3. It should be kept perfectly clean, and its bearings well oiled.
4. The insulation of its coils and conductors should be perfect.
5. It is better, when practicable, to fix it on an insulating bed.
6. All conductors in the dynamo room should be firmly supported, well insulated, conveniently arranged for inspection, and marked or numbered.

II. THE WIRES.

7. Every switch or commutator used for turning the current on or off should be constructed so that, when it is moved and left to itself, it cannot permit of a permanent arc or of heating; and its stand should be made of slate, stoneware, or some other incombustible substance.

8. There should be in connection with the main circuit a safety fuse, constructed of easily fusible metal, which would be melted if the current attain any undue magnitude, and would thus cause the circuit to be broken.

9. Every part of the circuit should be so determined that the gauge of wire to be used is properly proportioned to the currents it will have to carry; and changes of circuit, from a larger to a smaller conductor, should be sufficiently protected with suitable safety fuses, so that no portion of the conductor should ever be allowed to attain a temperature exceeding 150 deg. F.

N.B.—These fuses are of the very essence of safety. They should always be enclosed in incombustible cases. Even if wires become perceptibly warmed by the ordinary current, it is a proof that they are too small for the work they have to do, and that they ought to be replaced by larger wires.

10.—Under ordinary circumstances complete metallic circuits should be used, and the employment of gas or water pipes as conductors for the purpose of completing the circuit should in no case be allowed.

11. Where bare wire out of doors rests on insulating supports it should be coated with insulating material, such as indiarubber, tape, or tube, for at least

12. Bare wires passing over the tops of houses should never be less than seven feet clear of any part of the roof, and they should invariably be high enough, when crossing thoroughfares, to allow fire-escapes to pass under them.

13. It is most essential that the joints should be electrically and mechanically perfect. One of the best joints is that which is whipped round with small wire and the whole mechanically united by solder.

14. The position of wires when underground should be efficiently indicated, and they should be laid down so as to be easily inspected and repaired.

15. All wires used for indoor purposes should be efficiently insulated.

16. When these wires pass through roofs, floors, walls, or partitions, or where they cross or are liable to touch metallic masses like iron girders or pipes, they should be thoroughly protected from abrasion with each other or with the metallic masses, by suitable additional covering; and where they are liable to abrasion from any cause, or to the depredations of rats or mice, they should be efficiently encased in some hard material.

17. Where wires are put out of sight, as beneath flooring, they should be thoroughly protected from mechanical injury, and their position should be indicated.

N.B.—The value of frequently testing the wires cannot be too strongly urged. It is an operation, skill in which is easily acquired and applied. The escape of electricity cannot be detected by the sense of smell, as can gas, but it can be detected by apparatus far more certain and delicate. Leakage not only means waste, but in the presence of moisture it means destruction of the conductor and its insulating covering by electric action.

III. LAMPS.

18. Arc lamps should always be guarded by proper lanterns, to prevent danger from falling incandescent pieces of carbon and from ascending sparks. The globes should be protected with wire netting.

19. The lanterns and all parts which are to be handled should be insulated from the circuit.

IV. DANGER TO PERSON.

20. To secure persons from danger inside buildings, it is essential so to arrange the conductors and fittings that no one can be exposed to the shocks of alternating currents exceeding 60 volts; and that there should never be a difference of potential of more than 200 volts between any two points in the same room.

21. If the difference of potential within any house exceeds 200 volts, whether the source of electricity be external or internal, the house should be provided outside with a "switch," so arranged that the supply of electricity can be at once cut off.

By order of the Council,

F. H. WEBB, *Secretary*.

Offices of the Society : 4, The Sanctuary,
Westminster, June 21st, 1882.

In addition to the foregoing, the following hints may be profitably borne in mind :—Continuous wires (without joints) should be used as far as possible. And a surveyor, on examining the electric lighting arrangements in force in

any establishment, should not pass any system which does not provide for all the rods and wires having such a sufficient sectional area as to allow *at least* of 50 per cent. more electricity being sent through them than will ever be required for the lights they supply. Asbestos is the best insulating material to use as a coating for the wires. Cases have occurred where, for some extraordinary reason or another, paraffine has been a component part of an insulating (so-called) coating. It is needless to remark, that any such thing must on no account be allowed. Wherever electricity is carried into a building by conductors from an exterior source (and such a method of supply is certain to become general when companies shall have so far progressed as to be organised to supply houses and shops in the same way as gas is now laid on), a "cut out" must be provided as near as possible to the entrance to each building. In that case, the outgoing and returning wires should enter and leave each building at a distance of at least a foot from each other.

Mr. Werderman, the well-known inventor of many ingenious electrical devices, has taken out a patent to produce an incandescent lamp, in which a vacuum is not required, as in the lamps of Swann and Edison. The substance employed by Mr. Werderman is silicium, which is said to give as good a result as carbon. Should this improvement be successfully carried out, there will be a great change for the better in the progress of electrical illumination.

Electricity (singular generation of).—A curious instance of electrical development by friction has been observed in a Berlin brewery, though not without causing a good deal of alarm among the workmen. The building is constructed of stone and iron, the floor being laid in asphalt. In the upper story of the malthouse was a malt-cleaning machine, from which the malt was taken through an iron shoot to waggons below for distribution through the works. It was found that if this machine remained in operation for a length of time electricity was developed by

the friction of the malt with the shoot, and in the most isolated portions of it the tension of the electricity was such as to cause a continuous stream of sparks. The malt itself crackled, while the sparks flew from it to the hands of those standing by, who looked upon the manifestation as one of demoniacal origin. An expert was called in to examine the phenomenon, and the subject was brought before the Electrical Technical Union. Dr. Werner Siemens showed how, through the influence of the asphalt floor, the malt-room was so insulated from the other portions of the building as to become a large Leyden jar.

Electric Stop-Motions in Cotton Mills.—Some of the stop-motions in use on cotton machinery are, to the uninitiated, marvellously efficient, and would seem to leave nothing to be desired ; but such is the progress of ideas in our time, that the perfection of yesterday seems crude and incomplete to-day. In bringing a machine to a stand, a fraction of a second is of importance, as that is sufficient to allow broken ends of slivers and yarns to get out of convenient reach, and so renders a prolonged stoppage necessary. The instantaneous action of electricity did not fail to attract the attention of mechanics who sought to quicken the stop-action, and various experiments have in recent years been conducted with that agent, both in this country and in America. Little decided progress was made, however, until Messrs. Howard and Bullough, of Accrington, turned their attention to the subject, and patented the electric stop-motions which they showed in operation at the late Philadelphia Exhibition, and in a more complete form at the Paris Exhibition. In awarding the firm a medal for the invention, the Commissioners of the Philadelphia Exhibition said it was "for the very great novelty and originality of the electric stop-motion, which overcomes one of the most serious difficulties incident to the intermediate roving-frame, and is also of great value as applied to the carding-engine and drawing-frame." The merits of the invention were at once recognised by the cotton-

spinners of Lancashire, and it is now in operation in many of the mills.

A brief description of this invention cannot fail to be interesting at a time when the uses of electricity are engaging so much attention. First, as to the supply of electricity—that is provided by a small electro-magnetic machine, driven by a belt from the main shaft. In the case of the carding-engine, the point of electric action lies between two small callender rollers mounted in the coiler. So long as the sliver is passing between the rollers all goes well, but immediately they fall into contact through a breakage, an electric current is established, and the aim of mechanism of the stop-motion is brought into operation, the machine stops, and a bell rings. When the can becomes full, something similar takes place. A more interesting illustration of the apparatus is afforded by the drawing-frame, in which no fewer than four conditions can occur in which the work may be spoiled, and for each of which it is necessary to provide. The conditions are these: First, a sliver may break on its way from the cans to the drawing rollers (this also includes a can getting empty); second, the cotton may lap or accumulate on the drawing rollers; third, the slivers may break in passing from the drawing rollers to the callender rollers of the coiler, as, for instance, by lumps on them which cannot pass through the funnel above the latter rollers; and, fourth, when the front cans get filled with the sliver. Before reaching the drawing rollers, the slivers have to pass between "electric rollers," and so long as its presence keeps these rollers apart no electricity passes; but should a breakage or stoppage of supply occur, the rollers come together, electric continuity is established, and the stop mechanism brought into operation. If the cotton should lap on the drawing rollers, the upper roller is forced upwards until it comes into contact with the plate of the top clearer, and when it does this a current is established, and the stopping is effected as in the previous case. The callender rollers of the coiler detect a breakage at that quarter, in the same manner as when the can becomes

full, the tube wheel is slightly raised and brought into contact with the frame of the machine, thus making an electric connection, and bringing the stop mechanism into play.

Elegits, the Law of.—(See "Tenant by Elegit.")

Elemi.—A resinous compound, the combined products of certain trees growing in Java and Sumatra, and which is imported into this country through Holland, and is employed in the making of lacquer.

Ensilage.—The name given to a new system of preserving (by storage in deep pits) green fodder for cattle food. A cubic foot of ensilage weighs about three stone. The pit is called a "silo." The following letter appeared in the *Times*, and gives an account of the opening of one of these pits :—

SIR,—By invitation from Mr. Henry Hoare I went down on November 21st to Pagenhurst Farm, Staplehurst, and saw the first of his silos opened. The inside measurement was 24 ft. by 10 ft., and 10 ft. deep, and built of stone faced with cement, in a barn. I furnished the particulars for this silo in March, and at the end of May three acres of trifolium (a "very good crop") were mown and cut up small with the chaff-cutter, and well trodden into the silo. It stood above the edge about 12 in., and was weighted with three planks, and on these a heavy weight of stone. Mr. Austin, the bailiff, informed me that he estimated the weight of green trifolium was 50 tons, and that it would produce eight tons of hay, if dried. The mass had shrunk to almost one-half of its original depth. Upon removing the stone and three of the planks we came to a one-inch covering of straw, which had partially rotted, then with a hay knife Mr. Austin cut into a corner of the silo. About 3 in. of the ensilage was found to be mouldy, but under this it was in perfect order and green; the flowers were nearly as red and fresh as when put into the silo. In a short time, the smell and colour changed as the mass became exposed to the air. Mr. Austin took some of the cattle in the adjoining shed, and several of them commenced eating it at once. Pagenhurst Farm can be seen to the right as you approach the Staplehurst Station from London, so it is easy for all who are interested in the subject to go and see for themselves how a green crop can be preserved in a silo. The object of ensilage is to maintain the sap as nearly as possible in its original state, without having undergone either the transformation into grain and straw, or the fermentation of haying. That this is mainly effected is shown by the ensilage sent you herewith, taken from Mr. Hoare's silo, and it is proved by all the dairy farmers in the United States that the butter made from the milk of the cows fed on ensilage has the rich yellow colour and flavour that is never found in winter when cows cannot get into pastures, and are fed upon hay, roots, and grain.—Yours truly, THOS. CHRISTY, London.

Explosions: General Remarks.—If common salt be heated separately to a bright heat, and water at 150 deg. F. poured on it, an explosion will occur. Nitre, mixed with common salt, placed upon burning charcoal and water added produces a stronger explosion than salt alone. Heating caustic potash to a white heat, and adding warm or hot water, produces explosion. Anthracite coal and nitre heated in a crucible exploded when sea water was poured on them. What happens in chemical experiment may be developed on a large scale in burning grocery, drug, or drysalter's stores, where great quantities of materials, such as just mentioned, including common salt (almost always present), are heated most intensely and then subjected to the action of water in heavy dashes, or in the form of spray or steam. Picric acid, which explodes at 600 deg. F. (only 28 deg. above gunpowder), may also be an element in such explosions during fires. Picric acid is much employed by dyers in obtaining yellow colours, and is always kept in store by drysalters and druggists, and often by dyers.—(*From "POLICE AND FIRE."*)

Explosions: Flour Mills.—It is a noticeable fact, that the most destructive flour-mill explosions, as far as America is concerned, have occurred in water-power mills, and have been equally as devastating to the portions where mill-dust could not have aided expansion as they were in the dust-accumulating portions. In "Washburn A," the very foundations were moved at the base on the solid rock, two floors below existing mill-dust. Had the immense expansion come entirely from dust-combustion above, it would have crushed instead of spreading the lower abutments. Mill-dust, in this instance, must have been supplemented by a combination of carburetted hydrogen, or, possibly, by fire-damp. Whilst hydrogen gas is produced mechanically by forcing steam through metallic compounds under extreme heat, fire-damp naturally forms in moist unventilated atmospheres. Fire-damp is nothing but carburetted hydrogen gas, shewing that hydrogen may be freed from water by a process of nature, unattended by

heat. The theory proposed is, that the friction on the water of two 48-inch turbine wheels, under a 40-foot head, discharging 77,600 gallons per minute, may have produced hydrogen in such quantity as to be forced up into the mill, and there changed to hydrogen gas. In short, the theory is that hydrogen was produced, which, being naturally over 14 times lighter than common air, passed up through the mill, and became properly carburetted by combining with the elements incidental to flour-milling, and was the chief destructive element in the explosion.—(From the Prize Essay, by E. C. Johnson, in the *Miller* for Feb. 6th, 1882.)

Another authority observes :—

“The chances of an explosion of flour-dust may be increased by the presence of marsh gas or olefiant gas, generated from quantities of dust undergoing decomposition.”

Professor Peckham states :—

“A mixture of hydrogen and common air in such proportions that the hydrogen and oxygen can turn into steam produces a tremendous explosion.”

(See also “Kitchen Boiler Explosions.”)

F.

Fadge.—The rough undressed leather which is bound round the bundles of finished leather for protection in shipment.

Faller-wires, or “stop-fingers,” are the wires in a silk doubling machine, which detect a broken thread, and, by falling upon a balance lever, arrest the motion of the bobbin, and enable the thread to be mended.

Fancy.—In a woollen carding machine the “fancy” is the last roller that operates on the fibre carried round by the “swift” before it is taken off by the “doffer.” The wool, in being carded between the “swift” and the “workers,” becomes in a measure embedded in the clothing of the “swift,” or the fibre will lie below the points of the teeth. Now the duty of the “fancy” is to raise such fibre from between the wire, in order that the “doffer” may take it off with greater facility.—(*Textile Manufacturer.*)

Farming Stock.—The directors of the “County” Fire Office handed in a paper to the Select Committee on Fire Protection which sat in 1867. The paper contained, amongst other things, the following sensible remarks :—

“ Ricks should be placed in a single line, *hay and corn stacks alternating*, as the hay rick will check the progress of a fire originating in a corn rick. Never attempt to stay the progress of a fire by pulling the stack to pieces. If it adjoins other stacks, push wet hay into the hollow space under and around the bottom of the rick, so as to prevent the ingress of atmospheric air. The fire will then be extinguished and a great part of the rick saved. It is a fact, that if a moderate-sized hay rick be ignited, and then left undisturbed, it will frequently go out. These directions should be printed and pasted up in prominent positions on the out-buildings of the farm.”

Farming Stock : Nitrate of Soda.—Sometimes nitrates (unmixed with phosphates) are found stored in considerable quantities in farm buildings. In reporting to his office, therefore, the surveyor or agent should answer fully the following question :—

“ Is nitrate of soda, unmixed with phosphates or any other artificial manure, stored in any of the farm buildings? If so, state in which, and in what quantity.”

Farming Stock : To ascertain the Weight of Hay.—Measure the length and breadth of the stack, then its height to the eaves, add to this last one-third or one-half (or according to the pitch) the height from the eaves to the ridge at the top. Multiply the length and breadth, and the product by the height expressed in feet ; divide the amount by 27 in order to find the cubic yards : multiply these by the number of stones of 22 lb. New hay will average six stones, old hay from eight to nine stones. Thus, in a stack of new hay 60 ft. long, 40 in breadth, 12 in height to the eaves, and 9 (the half of which is $4\frac{1}{2}$) from the eaves to the top, there will be 60 multiplied by 40, multiplied by $16\frac{1}{2}$, making 39,600 cubic feet ; these divided by 27 give 1,466 cubic yards each of six stones of 22 lb., or nearly 8,797 stones.

Fenks.—The refuse of whale-blubber, sometimes used in the manufacture of Prussian blue, and also in the manufacture of ammonia.

Fents and Fent Warehouses.—In the Manchester trade, when cloth is cut into certain specific lengths, in compliance with a customer's orders, remnants of a yard or a yard and a-half each are left over from each length, and these are called "fents." A "Fent Warehouse" is really, therefore, the store of a dealer in remnants; and, as the trade is, in some measure, in the hands of Jews, the risks are not very desirable ones.

Ferret.—An iron rod used in glass-making to seize the molten matter with.

Fettler (Woollen Mills), the workman who cleans the "swift" cards. Syke's improved "fancy" now does the work of cleaning the teeth of the swift cards much more effectively than it can be done by hand. It also lessens the wear and tear resulting from such cleaning, and does not necessitate the stoppage of the machinery.

Fire-proof Coating for Bricks and Tiles.—Asbestos will stand heat as long as any known substance (unless it be platinum, which is far too expensive for use on a large scale), and is practically indestructible by means of heat. But there is probably no better material than fire-brick, specially made for the purpose, and known in the trade as "blast furnace fire-brick." Bricks and tiles made of fire-clay can be rendered more lasting by giving them a coating of plumbago, charcoal, and silica (pure white quartz sand) mixed together. Asbestos powder made into a thick paste with liquid silicate of soda, and spread over fire-bricks, prevents the bricks from cracking under fire-heat.

Fire-proof Ceilings.—The following letter appeared in the *Fireman* of May 1st, 1882 :—

FIREPROOF CEILINGS TO TOP STOREYS.

To the Editors of THE FIREMAN.

GENTLEMEN,—I see it stated in a little book lately issued, dealing with various fire subjects, "that the ceiling of all upper storeys should be fireproof or 'fire-resisting.'"

It seems to me that it would be far better for the ceiling to give way, and give vent and an *upward* current to the smoke and flames, than for it to remain

intact, confining the smoke and causing the flames to spread about the building in various directions, both on the level and lower floors.

At the Dowgate Hill warehouse fire, not long since, until the roof gave way and allowed the smoke to escape into the atmosphere, it was found impossible to discover or get near to the seat of the fire. When the roof (or a part of it) fell in, play could be made upon the fire, but the firemen waited some two hours for this to occur.

Your obedient servant,

“A RUSTY OLD FIRE-RUNNER.”

Fire-proof Construction: Wire Lath.—The *Manufacturer and Builder* gives the following description of a building erected by the Clinton Wire Cloth Company, which is said to be practically fire-proof:—

“The Company has shown its faith in the claims it puts forth in behalf of the fire-proof qualities of its wire-cloth for constructive purposes, by employing it extensively in its own building, which, although the floors and partitions are of wood, is claimed to be entirely fire-proof. Wire lath has been used on the ceilings, walls, and partitions. The lath is half-an-inch from the brick and the wood, held off by furrings; plaster is then forced through the wire lath, leaving a sufficient coat on the outside of ordinary thickness. At a test in Boston, a fire was started in a room that was covered with 4-inch Georgia pine plank, protected on the under side with wire lath and plastered in the usual way, and after two hours and twenty minutes burning in as heavy a fire as they could make, the timber was not browned, but remained perfectly protected. The roof of the office is a very common-sense arrangement. It is a fire-proof roof of the following construction:—First, the rafters 15 inches from centres; on these wire lath is fastened with staples, then a strip $\frac{1}{4} \times \frac{3}{4}$ inch is nailed on the lath up and down the rafters, a coat of mortar is put on—just enough to go through the lath and clinch, leaving it $\frac{1}{2}$ of an inch on the top of the lath; then the furrings for the slate are put on and nailed to the rafters, these furrings being 1 x 2 inches, and the plaster 1 inch, making it even with the furrings. The slate is then nailed on in the usual way.”

Fire-proof Doors: Tinned Wood instead of Iron:—

[From the *Fireman's Journal*.]

A number of experiments have been made in America to test the value of different materials for doors that may be exposed to fire, from which it appears that perhaps the best door yet devised is one made of wood and covered with tin. The door is formed of solid planks or boards, matched and fastened together, and crossing at a right angle, or at forty-five degrees. There should not be less than two thicknesses in any door, and as many more should be used as the size of the opening to be closed demands. This solid wooden door is then to be completely covered on every side with tinned sheet-iron, all the joints being soldered as in making tin roofs. The tinned door is supported by hangers moving on an inclined rail or track over the doorway, so that when free to move it will close by its own weight. At the door-jamb opposite the door, when it is open, should be a wooded casing covered on every side with

tin, and into which the door will fit tightly when it closes, by moving on its track, the inside of the casing being wedge-shaped. The casing on the opposite side must fit the door closely, so as to leave no cracks at the sides of the door. To keep the door open, a small bolt is placed on the inside of the door-jamb, the pressure of the door keeping the bolt in position. On the under side of the arch or top of the door is a wire having a joint or link in the centre, this link being soldered with fusible metal that will melt at one hundred and sixty degrees Fahrenheit. Just above the bolt that holds the door open is a weight supported by a wire connected with the wire holding the fusible link. This weight moves in guides, and is wedge-shaped below. The threshold of the door should be of brick or stone to resist fire, and high enough to keep out water in case the room is flooded. From the reports and experiments, it appears that such a door is thoroughly reliable, the soft metal link parting even in the heat of a fire in a building on the opposite side of the street, and allowing the weight to fall, pushing the bolt on one side, and permitting the door to close. Such wooden tin-covered doors and window shutters are reported to stand unharmed through severe trials when iron doors have failed, melted, and warped under less exposure to fire. The door and the automatic device for closing it, are officially recommended by some of the leading fire insurance companies of America.

Fire-extinguishing Apparatus and Appurtenances.—The following list of prices gives some idea of the cost of first-class appliances. It is well to bear these in mind, as firms sometimes claim much higher for hose-piping damaged or destroyed at a fire than they have any justification for :—

- A first-class brigade manual fire-engine, for 22 men, pumping 100 gallons per minute, including all necessary gear, and two 6½-foot lengths of suction pipe, £135.
- Copper-riveted leather hose, £7. 10s. per length of 40 feet, or about 3s. 9d. per foot.
- A very good leather hose can also be obtained for 7s. per yard, or 2s. 4d. per foot.
- Patent woven seamless canvas hose, £5. 16s. 8d. per length of 100 feet, or 1s. 2d. per foot.
- A good canvas hose (such as that in use by the Liverpool Fire Brigade) can be obtained for about 11d. per foot.
- Set of waterman's irons, £1. 1s.
- Reel, on springs, £15.
- Canvas buckets, 5s.
- Stand pipes, £4. 4s. each.
- Hydrant pipes, £1. 10s. each.
- Fireman's axe, 7s.

Fire Extinction: Application of Liquid Carbonic Acid.—It is known that the vapour-tension of liquid carbonic acid is enormous; thus, while it is about

50 atmospheres at 15° C., it exceeds 100 atmospheres at 50° , and it reaches 800 atmospheres at 200° . Hence, a vessel of the liquid represents a certain quantity of energy ready for use (if the cooling due to vaporisation do not lower the temperature of the liquid too much). This fact has been lately turned to account by Major Witte, head of the Berlin Fire Brigade. The steam pumps are supplied with reservoirs of liquid carbonic acid. When a fire is announced, the boiler fire is at once lit; but it takes some minutes to get up the requisite steam pressure, and the engine may have reached the scene before this is done. In that case, communication is opened between the reservoir of liquid carbonic acid and the motor-cylinder of the pump, and the vapour then drives the pistons like steam. As the temperature rises water is vaporised, and, for a time, the pump is driven by a mixture of steam and carbonic acid; then steam is used alone. The important point is that, by this arrangement, the pump is always ready to act when the fire is reached. A gain of five or six minutes, thus sometimes realised, may be of considerable importance at the outbreak of a fire. Major Witte's experiments prove that the consumption of carbonic acid, before working with steam alone, does not exceed eight kilogrammes (say 20 lb.), but two receivers should be used, because the cooling effect of vaporisation of part of the acid causes the rest of the liquid to freeze.

Fire Risk Inspection in Manufacturing Establishments (Instructions for).—In every manufacturing establishment a reliable system of fire inspection is of the greatest importance. An intelligent and careful workman (who devotes the greater part of his time to regular shop employment) should be selected to act as fire inspector, making regular and systematic visits of inspection over the whole premises, and noting his observations on a blank prepared for the purpose.

Following are the points to which such an inspector should direct his attention on each visit, it being essential that the inspection should cover the entire premises of

the company, and that it be made at least once a week. The inspector to hand in to his employers, every Monday morning, a report stating precisely in what condition he found everything mentioned under each of the following heads:—

1. The inspector will examine every hose connection, move every hose valve or cock, and see that the hose is properly connected and readily accessible for use. Also see that every fire-bucket is filled with water, and that each fire-lantern is filled, trimmed, and ready.
2. The inspector will carefully examine the surroundings of every steam boiler, stove or heater, to see that no inflammable materials are near them, that all smoke and flue connections are tight, stove-pipes well secured, and everything safe.
3. The inspector will carefully follow the line of every steam-pipe throughout its whole length to see that it is not in contact with wood, and that no waste or other inflammable materials are near. In summer this need apply only to such pipes as are then in use. In winter all steam-pipes must be inspected. Any leaks in pipes or valves are to be immediately reported to the mill manager or foreman.
4. The inspector will carefully examine spaces beneath all work benches and tables, and will remove therefrom any inflammable materials he may find. All cases of carelessness which he may note in this inspection to be promptly reported.
5. The inspector will particularly examine all places where oil, varnish, alcohol, lacquer, japan, &c., are stored, to see that every precaution is taken against fire. He will also inspect every receptacle for dirty waste, to see that it is in proper order and place.
6. The inspector will note the condition of the yards, and see that no accumulation of inflammable materials occur near any of the buildings.
7. Once monthly the inspector will carefully examine every chimney used for fires, to see that its joists are tight, particularly near the roof or other woodwork, and that no inflammable dirt is collected near it.
8. Once each month the inspector will take down and uncoil every fire hose, leaving it extended over-night and replacing it properly the next day. In doing this, he will note the condition of the hose, and see particularly that it is not becoming cracked or injured by the method of hanging or otherwise. All defects in hose to be promptly reported to the superintendent.

In connection with the foregoing, it is well to point out that a daily increasing number of firms are awakening to the advantage of forming efficient fire brigades from amongst their workpeople, with regular drill and practise with fire appliances every Saturday afternoon, for attending on which occasions the men are of course paid.

The water which is kept in the fire buckets or pails should be mixed either with ammonia, tungstate of soda, or chloride of lime or zinc.

Fixtures.—WHAT ARE “FIXTURES”?—Can a tenant remove a *boiler* used for trade purposes (or remove any similar fixture), which he has purchased from the previous tenant who erected it at his own expense? If a tenant can do this, can he insure and obtain indemnity for damage done to such fixture? and, if so, what would be the position of the landlord's policy covering same? These questions are suggested by a perusal of the newspaper paragraph, quoted below, and which relates to a case tried some twelve months ago at Leeds:—

THE RIGHT OF A TENANT TO REMOVE FIXTURES.—A NICE POINT.—Yesterday, at the Leeds County Court—before Mr. W. T. Greenhow, the judge—Charles Cleaver, residing at Southport, but formerly of Leeds, brought an action against Joseph Eddison, of the Railway Hotel, Hunslet Carr, Leeds, to recover £20—£12 as damages sustained by reason of the defendant converting a boiler to his own use, and £8 for delapidation caused by the defendant to the plaintiff's premises in removing the boiler and other effects.—Mr. E. T. Atkinson, barrister, appeared for the plaintiff, and Mr. Warren for the defendant.—The premises in question, situated in Iron Street, Hunslet, originally belonged to Messrs. John and Samuel Varley, and were occupied by Mr. Milner Wilson, as a sausage manufactory. About the year 1868 Mr. Wilson put into the premises a boiler, which was placed against the outside wall of the sausage-making shop. A fireplace and grate were also built into the premises. On the 3rd of August, 1871, the property was put up for sale, and the plaintiff became the purchaser. On the 14th of March, 1872, the property was conveyed by deed to the plaintiff, together with “outbuildings and other erections.” Shortly afterwards Mr. Wilson gave up the tenancy, and sold his fixtures, &c., to Mr. Turner, the incoming tenant. The boiler was included in the sale to the new tenant, but not, it was stated, with the plaintiff's knowledge, and it was alleged that he was no party to any arrangement between Mr. Milner Wilson and the new tenant. Turner eventually gave up his tenancy, and the defendant, Eddison, whom the plaintiff accepted, became tenant. Turner sold the boiler, &c., to Eddison. Some time afterwards the defendant ceased to be the tenant, and on leaving he took out the boiler, knocking down a part of the wall, and doing other damage to the property. The point raised for the plaintiff was, that although the fixtures were trade fixtures, yet the plaintiff, having purchased the property since the fixtures were put down, they passed to him as owner of the estate, and the tenant's right to remove them had gone. A number of witnesses were examined on both sides.—The plaintiff denied having given his consent to the removal; but the Judge being of opinion that he had, some discussion took place on the point.—Mr. Atkinson referred to a case quoted on a former occasion by Mr. Warren, that any consent by the landlord must be under seal.—Mr. Warren submitted

that the case referred to was only relevant when the tenancy had actually been determined before the landlord consented. In this case there was the verbal agreement before the termination of the tenancy.—His Honour said it was a very fine point, especially as there appeared to be no definite authority on the matter on all fours with this particular case. He gave a verdict for the defendant, and granted Mr. Atkinson leave to appeal.

Fixtures.—W. F. Fox, in the “Insurance Year Book for 1881,” says :—

“The word . . . usually applies to personal property which has become attached to realty (freehold) by annexation, yet severable from it. When not severable without spoliation, it becomes a fixture *real*; if removable without spoliation, a fixture *personal*. A fixture *REAL* passes with the *realty* (freehold); a fixture *personal* does not.”

Flour-milling.—The following description of a recently re-erected flour-mill, on the latest principles, may be of interest. I take it from the columns of the *Miller*:—

MR. MARSHALL'S FLOUR MILLS, IBROX, GLASGOW.

These mills have now been running nearly a year since their reconstruction, turning out flour which is now described as eclipsing American importations for value, the product, too, of the same wheats. A description of the mill and the system by which this result is achieved may be of interest.

Having been burnt down in October, 1880, the reconstruction of these mills was most carefully planned, so that as few combustible materials as possible should be brought into use. It is of course impossible, in a modern flour-mill, to make each floor isolated from every other, the whole building being in fact one large machine, with elevators, spouts, and worms running in all directions. To render the building safe, it was decided to make all the beams and joists of wrought-iron, the roof also of iron, and the walls brick. The elevators, spouting, and worm-casings are of galvanised iron, while a large water-tank, holding 6,000 gallons, has been erected at the highest point in the building, with pipes leading to each of the six floors of the mill, and seven floors of the cleaning house. In addition to these, there are nine “extincteurs” and more than 100 buckets, always filled with water, distributed on the different floors.

The flour store and granary, cleaning-house, and mill form one building, but are entirely divided from each other by brick walls from basement to roof, the only communication between them being by wrought-iron galleries running outside the building. The wheat enters the cleaning-house from the granary by means of a worm. It is taken up to the top floor by a set of elevators to a separator, by which the chaff and weak immature grains, also small seeds, sand, oats, barley, Indian corn, peas, vetches, &c., are removed. The wheat, on leaving this machine, passes into cockle separators, which remove this highly objectionable but very common seed. From this it passes to a scourer, which breaks up any loose clay or earth, and rubs off adhering impurities, then goes to another scourer, in which the grains are violently rubbed against each other to remove the beard of the wheat and the brittle outer

berry. The wheat then falls on to a "Brush" machine, which entirely removes any impurities left by the foregoing machines, leaving the grain clean and bright, ready to be operated on by the

Roller Mill.—The first operation the wheat is subjected to here is really a continuation of the cleaning process, its object being to remove a small quantity of dirt which lies at the bottom of the crease of the berry, so enclosed by it that none of the machines in the cleaning-house can touch it. To get rid of this impurity, the wheat is passed between two fluted rollers, which are so adjusted as to split the berries with as much accuracy as possible, longitudinally. The wheat thus divided is elevated to the top of the mill, where it passes through centrifugal dressing machines, which separate the semolina and dirty flour from the wheat. The wheat thus separated now falls between a second pair of fluted rolls, somewhat finer than the first, elevated thence to a centrifugal, and so on through five sets of fluted rolls in all, the fluting being somewhat finer as the work progresses; the produce of each rolling being elevated to and separated by a number of centrifugal dressing machines. The bran having left the last fluted rolls, has so little flour or semolina adhering to it, that a further operation by means of fluted rolls would only make bran dust; so it is divided into two streams consisting of large and small bran, and conveyed to powerful smooth rolls, each size being operated on by separate machines. These rolls do not rub the bran, but simply subject it to pressure, by which the coherence of the remaining flour is broken, without materially injuring the bran itself. The bran, and flour on it, leave these rolls in the form of a flat cake, and pass to a machine called a dismembrator. This is formed of two discs, one stationary, the other revolving at a high speed; each disc being studded with pins. The cakes of flour pass between these pins, and get thoroughly broken up. Underneath this machine is placed a filter, by means of which any moist air generated in the process of rolling the damper varieties of wheat is withdrawn. The material is again elevated and dressed through centrifugal dressing machines, separating the flour from the finished offals, in bran, thirds, and fine thirds.

Up to this point it will be seen that the grain has been reduced into offals, semolina or middlings, and flour. As little of the latter is made during these operations as possible, the object aimed at being to get the wheat into the shape of middlings, as free from offal as practicable.

These middlings are collected from the various breaks, and go into a sizing reel. Each size then passes to its appropriate purifier, when any fine offal or fluff there may be is withdrawn by means of air currents, the semolina being at the same time divided into various assortments as to size and purity. The purest are run together to make the best middlings or patent flour. The second quality is collected together and repurified over separate machines, and this is done also in the case of the third and fourth qualities.

From these several machines, the middlings are run to their appropriate bins, over the rolls intended to reduce them to flour. From these rolls the material in most cases passes into "dismembrators," and it is all elevated to the top of the mill to centrifugal dressing machines, where the finished flour is dressed out.

The result of these reductions, which are carried on simultaneously and automatically, is seven different varieties of flour (besides the dirty flour from the first break), and the arrangements are such that they can all be run into one sack, or four different qualities can be sacked at the same time ready for market. The flour is automatically packed.

From the time that the wheat leaves the cart till the flour and offal are sacked, there is no manual labour employed, supervision of the machines being the only duty the men have to perform.

All the dust-laden air is conveyed by metal pipes to the filters, where the dust is at once removed.

The risk of explosion is by this means reduced, and the whole mill is kept remarkably clean.

There remains only one other point to be mentioned in connection with the reduction process as carried out in this mill, viz. :—The elimination of the germ. This is obtained along with the coarsest separation of middlings from the purifiers, which are passed on to a pair of rolls and pressed, so that the germ is flattened out into a small disc, while the brittle semolina is reduced to flour and smaller semolina. The germs pass over the tale of a centrifugal dressing machine, while the flour and semolina go through the meshes of the covering of the reel.

It is most important to get rid of this substance, as it not only deteriorates the flour as to its keeping and baking properties, but it is also a valuable cattle food.

The power is generated by two coupled high-pressure engines, capable of working up to 200-horse power if required; but, as the mill is at present fitted, only a portion of this power is used.

The capacity of the mill is between 1,100 to 1,200 sacks per week.

The different floors of the mill are fitted with bells and speaking tubes, communicating with each other and with the engine-house. The mill is also in telephonic connection with the city, and so with the members of the Glasgow corn trade.

The rolls, dismembrators, dressing machines, and purifiers were supplied by Messrs. Nagel and Kaemp, of Hamburg, whose system of milling, under the advice and on the plans of Messrs. Sanderson and Gillespie, 26, Mark-lane, London, is that carried out in the mill.

Flour Milling: the "Exhaust."—Mr. C. Stewart, the talented representative in Glasgow of the "Lancashire" Insurance Company, has recently forcibly expressed his opinion that A.L. millstones should be protected by casings, and by Behn's High-Pressure Aspirator. The casing is of wood, lined with felt, and covered over with metal covering. The air is drawn from the stones through a cloth made of woollen felt, which keeps back the dust; and there is also an iron tube passing through to the outer air, by which means an explosion, if it does take place, is rendered comparatively harmless.

Some such warranty as the following is recommended for use in flour mill insurances:—

"It is warranted by the insured that all hard foreign wheats ground in the above described mill, with the exception of those grown on the Atlantic side of the United States of America, are damped on the premises before being crushed, split, or ground."

Flour Milling: Wheat Heating.—In the *Miller* for September 4th, 1882, appeared a letter from a correspondent advocating the following method as the best for producing the finest quality of white flour, viz. :—“After the wheat has been screened, give it a uniform heat, from 80 to 95 degrees, according to the hardness of it ; then crack it lightly, either with smooth rollers or stones ; when the berry is broken open, it frees the dust in the seam which cannot be got out by the screen ; then run it through a cylinder, screen, or coarse silk,” and so on. It only needs to be said that, from an insurance point of view, such a system demands careful scrutiny at the hands of surveyors, and, where found in use, a more than passing mention of it should be made.

Some millers have at times used a kind of make-shift heating apparatus, consisting of from 20 to 30 feet of $\frac{1}{2}$ -inch copper coiled inside a cylinder, and heated by a petroleum lamp, with a couple of 4-inch wicks ; but this does not seem to be an altogether successful heater.

Flour-milling : Use of Magnets.—The placing of magnets in the spouts to act as “detectors” in revealing the presence of nail-heads, bits of iron, wire, &c., in the wheat has now become the rule in all well-regulated mills. A magnet will collect in the course of its day's work an assortment of rubbish that would gladden the heart of any marine store dealer.

Two or three series of from four to six magnets each, properly put into any ordinary mill spout, through which all the wheat must pass, will remove from the grain every particle of iron and steel.

If the spout is about five inches wide inside, it is best to use three rows of magnets, four in each row ; but if the spout is much over five inches wide, then two rows will suffice, but a proper number of magnets must be put into each row to allow *not more than an inch space between their flat sides.*

In some cases it may be better, when there is sufficient length of spout, if it is a *very steep* one, to place these gangs

or series of magnets, say two or three feet apart ; but generally the best results follow their being placed near together, securing thereby a more perfect zig-zag flow of wheat.

Reasonable care should be taken to have the magnets WELL FITTED INTO THE PIECES OF WOOD which are to form the sections of the spout cover. Ash, maple or other hard wood should be used, and of sufficient thickness to prevent the magnets "wabbling" about in the holes. If found necessary (and it would seem advisable), a small block of wood may be fastened to the top of the spout cover, *beneath the bow of each magnet*, to prevent their touching the bottom of an iron-lined spout, as well as to hold them more firmly in position.

Magnets are always left with the keepers on, when possible, for without its keeper, the tendency of a magnet is to weaken ; but if the keepers were left on in the spout they would monopolize the attractive force of the magnets, leaving scarcely any magnetism for picking out the pieces of wire.

When the first magnets were put into mills, it was supposed that they would grow weak and need recharging after a year or two ; but the verdict thus far is that they do not lose their power. In spouts lined with sheet-iron they actually *grow stronger*.


In handling magnets it should be borne in mind that every time the keeper is forcibly pulled away from the poles, the strength of the magnet is diminished a little. They should not be "played with" any more than is necessary to satisfy a reasonable curiosity.

(See also "Explosions").

G.

Gabian Oil.—A mineral naphtha imported from the Continent.

Gambroon.—A twilled linen cloth.



Garblings.—The pickings or sortings of wool, cotton, and such like.

Gating.—To “gate” is to recover or renew the clothing of the rollers in a cotton mill. It is also used to express the amount of work (banding or piecing together) which the mill-owner has to expend in putting his machinery into proper working order after he receives it from the hands of the machinist.

Genappe consists of worsted yarns, which are prepared by passing through a flame of gas, scouring, and other operations, and combines very readily with silk. It is used, chiefly by manufacturers on the Continent, in the manufacture of fringes, braids, &c.

Germ Meal.—(See “Degerming”).

Gig Machines.—Rotatory drums used in teasing cloth.

Goods in Trust.—The words “for which he is responsible” ought NEVER (under any possible circumstances) to be omitted from the “Goods in Trust” clause. Otherwise, although a dyer, for instance, may in reality not be held responsible, by the custom of the trade, for silk goods of his customers on his premises at time of fire therein, yet it would not be necessary for him to establish his responsibility, if the words “for which he is responsible” were not in his policy. In the absence of such words, all that he need establish would be that the goods were “in trust” to him to be dyed, and that would be sufficient. (See Bunyon’s “Law of Fire Insurance” [C. & E. Layton, London], pp. 20, 21, and 22; see also under “Dyer’s Responsibility”).

Glass Works.—According to the *Finance Chronicle* of August 15th, 1882, the principal seats of the glass manufacture in England are on the banks of the rivers Tyne and Wear, and the neighbourhood of Birmingham and Stourbridge. (Stourbridge clay, used in making the “pots” in which the glass is melted, is largely exported to France and Germany for that purpose.) At Gateshead, on the

Tyne, are to be found the principal manufactories of flint-glass for table purposes; lower down the river, at Shields, the plate-glass industry is actively carried on. On the Wear are sheet, plate, and window glass works. The greater portion of the common bottles used in England are made in the vicinity of Sunderland. At Birmingham, there are large plate and window glass works, and at Stourbridge, the first seat of the glass trade in England, is produced table glass of the highest quality. At St. Helens, stained glass and richly designed windows for churches, &c., are the principal branches of the glass-making trade there.

Green Ebony.—A brownish-green coloured wood, imported from Jamaica. Used in marquetry.

Grey Goods: Cloths in the Grey.—Unbleached and undyed cottons.

Gum Piney.—A fragrant resin, much used in the composition of varnishes.

Gyle.—A brewer's vat or utensil.

Gyrograph.—A newly-invented photographic instrument, used in photographing stationary objects whilst the operator himself is in motion—as in a railway train for instance. The gyrograph consists of a copper tube similar to that which carries the lenses of ordinary cameras, except that the lenses are placed on opposite sides parallel to the axis.

H.

Hackling or Heckling.—The second process in flax-dressing, whereby the fibres are split and reduced to the finest possible condition. There are generally three hackling machines in a flax-spinning establishment, viz: a *coarse*, *medium* and *fine*.

Healds or Heddles. The harness of the weavers' loom, generally made of worsted yarn. These yarns are

stretched on a frame-work, and looped in the centre, the warp being passed through the loops so as to interlace the weft in the process of weaving. The parts round the loops are varnished to prevent the yarn wearing out, and it is the preparation of these heddles and their varnishing and drying which, being justly considered very risky, is generally prohibited being done in the mill proper, by a warranty in the policy. Some assessors and valuers contend that healds come under the definition "*machinery, mounted and in use,*" and that, consequently, when a particular set of healds are not actually in use (different sizes of healds being wanted for different kinds of work), they are not covered by the policy. I cannot agree with this view. I take healds to be "*utensils-in-trade*"—coming under the machinery item certainly, but only when that item reads as it should read, viz. :—"On machinery, mounted and in use (not mill-wright's work), *and on all moveable utensils-in-trade,* therein."

Hollows.—In book-binding, these are strips of thick paper or of paste-board, which serve to guide the case-maker in his work, and also stiffeners for the cloth at the back and between the boards of the book.

Horse-tails.—In cotton-combing machines, these are two small arms that support, and hold in its place, the brass fluted roller which travels on the top of the detaching roller.

Hose-piping.—(See "Fire Appliances," and also "Fire Risk Inspection in Manufacturing Establishments: instructions for"). It may be useful to note the following description of Wilkin's improved hose-coiler and drying machine for canvas hose :—

"This machine is made to do the work which all firemen know ought to be done by something better and more efficient than hand labour. The apparatus is for coiling hose-piping up into firm coils ready for use, and also for pressing the water from the hose after being washed.

“Though this may seem an unimportant detail, it is in reality a matter of some moment, both as saving time and material. The hose is always rolled up in the same crease by this machine, so that the weakness of a number of creases is avoided. The time occupied in coiling up a length of hose 100 feet long is scarcely fifteen seconds.

“There are many towns in which the fire brigade have not a second supply of hose, and also very inferior accommodation for washing and drying the same. In such cases, a machine of this description would be found very useful, as there are times when the hose is hanging up to dry after a fire, when another fire breaking out, half-a-dozen or more firemen would be occupied for some time at a period of danger in rolling up the hose ready for use ; whereas, by the use of a machine of this description, one fireman could coil up two dozen lengths of hose in a very short space of time, and a great amount of unnecessary labour and loss of time would be obviated.

“This machine is worked by means of a cog-wheel, a small pinion and crank mounted on a neat stand, and a steel fork of about nine inches in length projects from the centre of the pinion wheel. The centre of the fork forms a small cylinder, and in this one of the lugs of the male coupling is fixed. The hose is conducted to the fork through two gun-metal rollers, one of which is supported and works on an iron pin, the other works on a lever, on the end of which the pressure is put by means of small weights which can be regulated according to circumstances, thus making it available for coiling dry, or for pressing the water out of wet hose. A steel guard is placed on the side of the machine, which can be regulated to suit any diameter of hose-piping. A steel guard is also fixed on the top of the machine, to protect the hands from coming in contact with the teeth of the wheels when in operation.”

Hurds.—Waste, or refuse flax, or tow.

Hyalography.—The art of etching on glass,

I.

Ice (Manufacture of).—The machinery used is generally on the principle of Pictet's patent, the cooling agent in which is sulphurous anhydride, a substance which can easily be converted from the liquid into the gaseous state. It is while thus changing that heat can be absorbed by it and cold produced. An important part of the mechanical arrangements is an underground tank carefully insulated from the surrounding earth, and containing the moulds in which the blocks of ice are frozen. If the water were allowed to freeze in the moulds without restriction of any kind, the ice would be white like snow and cloudy. To prevent this, the water in the moulds is kept in motion, while it is freezing, up to the last moment of finishing the blocks, by an arrangement of reciprocating paddles worked by steam.

Iceland Moss (*see* "Lubrication of Wool").

India-rubber Playing Ball Manfactories.—These should not be accepted on any terms unless the proposer agrees to the following warranty:—

"Warranted that no reclaimed rubber be stored, used, or in any way brought on to, or worked up in the premises, and that no naphtha or other spirit be stored or used therein."

India-rubber Works.—Naphtha, sulphur, and lamp-black are used in the preparation of the raw rubber. (*See* also "Vulcanizing Room").

Incendiarism During Rioting and Civil Commotion (*see* under "Ireland" for remarks relating to incendiarism in that kingdom).—When a house is burned down during rioting, or while the district is suffering from mob terrorism, the Hundred (or by whatever other name the said district is designated) is held liable to make good such damage, but it has been justly held that it must be proved that it was the clear *intention* of the rioter or rioters to destroy that particular house. If a band of excited men, for instance, were marching past a house, brandishing torches (as has often happened during strike movements

and a spark, or an expiring torch, fell accidentally into the cellar of the house, through some badly-secured opening or another, and set the house on fire, no claim could fall upon the Hundred or Barony if it could not be proved that the falling of the torch into the cellar was other than a mere accident.

Instructions Given by Proposer to Agent (*see* "Contract of Insurance").

Instructions for Fire Risk Inspection in Manufacturing Establishments (*see* "Fire Risk Inspection," &c.).

Instructions to Insure Sent by Post.—From the daily papers of 22nd May, 1882 :—

In the Queen's Bench Division yesterday, at the Guildhall, before Mr. Baron Pollock and a special jury, the case of *Robinson and Co. v. Dumas* and another was heard. This was an action to recover £800, the value of the insurance of two parcels of sapphires, which were stolen in the recent Hatton Garden Post-office robbery. The defendants pleaded that the loss occurred before the insurance could be effected, and denied their liability.—Mr. Butt, Q.C., and Mr. Hollams were counsel for the plaintiffs; Mr. Russell, Q.C., and another learned gentleman appeared for the defendants.—The plaintiffs were diamond merchants and dealers in precious stones, carrying on business in London, and the defendants were insurance brokers in the City. It was the practice of the trade to send precious stones to the post, addressed to their clients, in registered letters, and then insure the jewels. It had been the practice of the plaintiffs to send the instructions for insurance, and post them at the same time they posted the letters with the jewels in registered letters. In this way, on the 16th November, the plaintiff despatched two registered letters, addressed to different parties in France, containing the sapphires; but the orders to the defendants for the insurance were not delivered until the following morning. The next morning, between ten and eleven o'clock, the plaintiff heard the rumour, which was afterwards confirmed, of the robbery. An insurance was then effected, but on these terms: "Free from robbery already reported." The defendants had resisted payment of the insurance on the grounds that the jewels were not actually insured before the robbery. The plaintiffs contended that as they followed the usual practice of posting the instructions to insure at the time they posted the jewels, that they were entitled to the insurance.—Mr. C. Russell, for the defendants, contended that the posting of the insurance orders to the defendants by the plaintiffs did not render them liable for the insurance. The plaintiffs appeared to be under the impression that when they posted the orders to insure to the broker they were covered by the insurance. Mr. Baron Pollock said the question was whether the insurance was effected within a reasonable time. Mr. Dumas was the plaintiff's witness, and he was called, but before he gave his evidence the case was put up. Mr. Butt claimed his right to proceed as

The jury said they were of opinion there was no negligence as alleged against the defendants.—Mr. Butt said this was a transaction not in the ordinary course of business, and addressed the jury on the facts of the case, contending that it should have commanded the earliest attention of the defendants.—The jury returned a verdict for the defendants, for whom his Lordship gave judgment.

Indemnification (General Principles of).—

There is no difficulty in describing a fire insurance policy as a "Contract of Indemnity," but it is not so easy to find all parties agreeing in the meaning of the word "indemnity" itself. I am afraid that the hands of the professional "claim makers" will be considerably strengthened by the extraordinary finding of Sheriff-substitute Lees in an arbitration case recently decided by him, and the particulars of which I give here in full for the benefit of those interested in such matters.

As regards the first part of Mr. Lees' judgment, I am not inclined to dispute the dictum that, if an insurance company elects not to reinstate certain machinery damaged, but to appraise the damages instead, the same company cannot force its claimant to accept a settlement on the basis of effecting repairs to the said machinery;—it must, on the contrary, pay for replacing new machinery, with due deductions, of course, for wear and tear and depreciation generally of the machinery burned or damaged. So far so good. But no insurance company would ever be so foolish as to allow even the "immediately-before-the-fire" price on a machine which, handed over to the owner as salvage, could be thoroughly repaired by him at one-half the "immediately-before-the-fire" price, and thus enable him to realise a profit out of his fire. Yet this appears to be what Mr. Lees has tried to lay down as law. He says: "If the claimants get the larger sum, and then repair their machinery and pocket the difference in price, it may be said they are gainers to the amount of that difference, and that it is a canon of insurance law that an insured person is never to make gain out of his insurance. Now, I am not sure that the difference is pure gain, and in any event the respondents could have obviated the chance of his making this gain by repairing the machinery themselves." This is

Indemnification—continued.

unsound law, and the very reverse of all true equity. Let us take an example of its working:—Suppose a certain machine to be worth £400 when new. It has “lived,” say, nine or ten years, and its “immediately-before-the-fire” value is, say, about £200. A fire occurs and damages the machine to such an extent that it will take £100 to restore it to its value and usefulness as such existed “immediately before the fire.” The insured is offered £100 by the fire offices as the amount he will have to expend in restoring his machine. He refuses to accept this, and insists upon receiving instead the full “immediately-before-the-fire” value. What happens? Why, the insurance office pays him the £200, but they take the damaged machine and sell it on their own behalf, and thus reduce their loss. This, however, is not always done. An assessor possessed of tact and resolution will always try to avoid saddling the offices with salvage in this way, if it can possibly be avoided. He will say to the claimant:—“Accept the valuation of £100 as the measure of your damage payable by the offices, and I will take all trouble off your hands by selling the salvage on your behalf, and handing you over the proceeds of the sale.” This is insurance PRACTICE: the fact that it does not agree with Mr. Lees’ dictum, is so much the worse for that gentleman’s reputation, but does not alter the case. For, what Mr. Lees says is this: a man has a right to more than his actual loss—he has a right to “pocket the difference” between what an insurance company pays for repairs and what he in reality expends on them—and “I am not so sure,” he adds, “that the difference is pure gain!” Reverting, then, to the £400 example stated above, according to Mr. Lees, the offices should pay the claimant £200, albeit he would only be a loser of £100, and would be able to put the other £100 into his pocket!

Next, as to “manufacturing stock” values.

Mr. Lees says, if a MANUFACTURER “was offered a price for his stock, and the stock were consumed by fire before he accepted the offer, surely his loss would be covered by that price. It is a common loss that accidents

Indemnification—continued.

undertook to indemnify the claimants." Certainly not ; no insurance company would bind itself to such a foolish undertaking. A wholesale trader in manufactured goods gets the market value (immediately before the fire) of the goods he got from the manufacturer ; that is, he is paid at the rate he would have, immediately before the fire, had to pay to the manufacturer for the same goods, but he is *not* paid at the rate he could have obtained from *his* customer, the *retail* dealer. The retail dealer, when he has a fire, is paid according to the price he would have had to pay to the wholesale dealer, but he is *not* paid according to the price he could have obtained from *his* customer, the general consuming public. In the case of a trader who is a spinner, a manufacturer and a wholesale warehouseman as well, a fire loss in his warehouse would generally be settled on the basis of paying him at the rate of the day which a man who was a wholesale warehouseman *ONLY* would have to pay for manufactured goods. Thus, a man combining the three trades in one would get his "mill profit" (as it is called) out of the loss, but there is nothing inconsistent in that.

Mr. Lees' judgment (as given below) is worth careful reading, but his ways are not the ways of practical fire insurance men, and his views should be studied mainly for the sake of fore-arming oneself against opponents who may, for lack of better arguments, adopt them as their own :—

A judgment pronounced by Mr. J. M. Lees, one of the Sheriff-substitutes of Lanarkshire, in an action raised in the Sheriff Court of that county, in course of which the assessment of the loss in respect of the pursuers' machinery and stock came to be determined by him as oversman in a judicial reference entered into in terms of the arbitration clause in the policy. The pursuers were Messrs. Cunningham, manufacturers, Glasgow, and the defenders the General Life and Fire Assurance Company, the amount concluded for being £2,755, or £45 less than the total amount of the policies. The character and extent of the loss, and the nature of the defence advanced by the Company, are sufficiently explained in the following note to the Sheriff's Interlocutor, in which he finds the pursuers entitled to £2,651, the amount which defenders admitted as loss being £2,066.

Note.—This arbitration is the outcome of a case that depended before me in Court, and as in terms of the policy the quantity and value of the articles destroyed fell to be determined by arbitration, the parties, when the case had

Indemnification—continued.

reached that stage, having in view the difficulties it presented, solicited me to act as oversman. I should have been glad if they had taken my judgment before the case went to arbitration on the delicate and important points which I shall presently mention, so that, if wished, the soundness of that judgment might have been ascertained on appeal. But as this course has not been taken, I have only given these points the more careful consideration before deciding them.

As regards five of these sums into which the risk was apportioned, it is not necessary now to say anything, seeing that in the course of the proof it was eventually agreed to hold the loss on the building, so far as insured, as amounting to £180, on the furniture to £20, on the engine to £30, on the engine-house to £15, and on the shed to £50. But as regards machinery and stock, these were the subjects of elaborate proof and scientific investigation on several Saturdays during the autumn recess, and of most able and minute argument by the parties' agents.

The machinery was insured to the extent of £650, and the claimants, estimating their loss at more than this sum, claim payment of the £650 and to retain the salvage. The respondents contend that all they are bound to do is to pay the claimants *such a sum as will enable them to repair their machinery* where that is possible, and where that is not possible, will represent the value of such parts of it on the day they were destroyed. In my opinion the sum payable on the one basis would be £623. 9s., and on the other £348. 18s. 6d. I give both sets of figures, because not only is the result one of considerable pecuniary importance to the parties, but also because the point does not seem to have been adjudicated on in any British, Irish, or American Court, and is such that much may be said for each view in regard to it. The matter must, I think, be determined on considerations of principle.

Now a contract of insurance is purely a contract of indemnity. Its object is to indemnify the insured for his loss to the extent to which the insurance goes, and thus the sum in a policy limits but does not measure the payment to be made for the loss.

As Mr. Justice Willes said, in a case where a ship had struck on a reef and been injured, and was repaired by the owners, "the owners are not to get anything which they did not lose by the vessel striking on the reef. They are to get the amount of the diminution in value of the vessel . . . the difference between her then value and what she would have been worth but for the damage she sustained."

Now, some parts of the machinery were irreparably injured. These, it is conceded, must be replaced, and the claimants asked the sums needed to purchase such machinery new. The respondents contend that they are only bound to pay for the value of the machinery as it stood on the day of the fire, *i.e.*, that the amount of depreciation in its value through use should be deducted. In this I think they are right, and the claimants, as I understand, do not now dispute it. In the case of the *Hercules Insurance Company v. Hunter*, 14 S. 147, Lord Moncrieff indicated this as the mode of settling the above. But the most direct authority is to be found in the case of *Vance v. Foster*, in 1841 ("Irish Circuit Reports," II. 18), where Baron Pennefather advised the jury to estimate the pursuers' loss by considering the first cost of the machinery and the condition it had come into, and deduct the difference in value from the expense of the new machinery. This rule has been approved of in subsequent cases, and has also been accepted in many American Courts, though not in all. It will be remembered, too, that in marine insurance one-third of the cost of

Indemnification—continued.

repairs, as being a rough-and-ready means of assessing the excess in value of new materials over old, is always deducted from the amount actually expended.

I think it is, therefore, clear that where subjects insured have been totally destroyed, the insured is not entitled to get the full cost price of said subjects but only what they were actually worth immediately before the fire.

As regards the subjects which were partly destroyed, and which could apparently be made by repair as good as they formerly were, a difficulty arises. If the insured had, as matter of fact, executed the repairs, he would only get their cost, for that is all that he has lost, and if, as sometimes happens, the cost of repairing an article is greater than the cost of a new one, he would only get the latter amount, and subject to deduction for depreciation. It is obvious that, if the insured repaired his machinery, and got the cost of making it as good as new, then the worse his machinery was before it was injured by the fire (*i.e.*, the less his loss) the greater the sum he would receive. Thus Lord Justice Cotton, in *Pitman v. The Universal Marine Insurance Company*, 6th June, 1882, 9 L. R. 2 B. 192, and Mr. Justice Montague Smith, in *Lidgett v. Secretin*, 6 L. R. C. P. 622, speak of the cost of repairs executed on a vessel as a mode of estimating the sum to be paid by the underwriters, and it will be noticed that the phraseology they employ, and the practice in marine insurance, favour the contention of the respondents in this case—that where there is not a total loss the insurers may be liable only for the cost of repairs, subject to allowance for increased value of material. Still, the principles of marine insurance are necessarily so distinctive that they must be accepted with caution in a case of the present nature.

Another reason urged for the respondents is, that the question should be asked, What would a prudent uninsured owner do in the circumstances? Would he repair or replace? And they say: Why should a person who is insured be enabled to treat his loss differently from what he would probably have done if he had not been insured? Well, I suppose the answer is, first, because he is insured. He has paid the premiums, he has contracted for safety, he does not care to work with tinkered tools; in short, he wants to get what he insured for. But if the claimants get the larger sum, and then repair their machinery and pocket the difference in price, it may be said they are gainers to the amount of that difference, and that it is a canon of insurance law that an insured person is never to make gain out of his insurance. Now I am not sure that the difference is pure gain, and in any event the respondents could have obviated the chance of his making this gain by repairing the machinery themselves, if they had elected to do so timeously. Practically the position they take as to repairs is "we won't—you shall." Now, I apprehend, on a construction of the contract, that where insurers elect not to reinstate, they become absolutely bound to recoup the insured for his loss in money, irrespective of how it is to be applied. The insured may not care to resume business, and I suppose he would seldom get as much for the salvage as, when added to the cost of repairs, would equal the price he would get for the machinery if sold after being repaired. Unless, therefore, he incurred the trouble of repairing the machinery, he would not, in getting from the insurance company the cost of the repairs and selling the salvage, get the equivalent of what he lost by the fire. But the express object of the policy is to cover that loss—the loss as things stood on the day of the fire, and not the loss as things may come to be on some future day.

Indemnification—continued.

It seems to me, therefore, that, viewing the question as one of general principle, the weight of the argument is clearly with the claimants; and that where an insurance company do not elect to reinstate, they must pay the insured the value of his property lost or injured as it stood immediately before the fire, and cannot call upon him to accept only the probable cost of repairing the injured articles. And I am the more strongly led to this conclusion in the present case by the fact that the respondents, by the conditions of their policy, reserved the right to reinstate any part of the insured property. What, therefore, was susceptible of repair they could have repaired, and the rest they could have paid value for. In short, they cannot invoke equity where they had in their own hands the easy remedy for what they think a legal hardship.

The stock was insured for £1,800, and the claimants compute their loss on this score at £2,088. 10s. 6d., while the respondents admit only £1,462. 8s. 4d. The important point is the determination of the basis on which the values of the goods are to be estimated. I have carefully considered the arguments urged for the respondents, and examined the various authorities to which I was referred, but I cannot give effect to their contention. I am clearly of opinion that the claimants are to be paid for their stock according to its market value; any other result I should deem unsatisfactory and unfair. The contract is purely one of indemnity; the insured is to be compensated (so far as the policy goes) for his loss—not more, not less. Now, the loss he suffers is the market value of his stock. If he were sequestered, the value of his stock of finished goods would be not what he had laid out in producing it as a manufacturer, but what it was worth in the market. Now, the loss in the two cases is necessarily the same. Similarly, if he was offered a price for the stock, and the stock were consumed by fire before he accepted the offer, surely his loss would be measured by that price. Now, it is against that loss that the respondents undertook to indemnify the claimants. In short, the loss of the claimants is of the same extent, whether insured or uninsured. It seems to me obvious that the cost of the ingredients to a manufacturer, plus his outlay in wages, is not a true gauge of his pecuniary position. Prices and wages may have fallen or risen since he bought. Neither can the value of the ingredients on the day of the fire be taken as a factor in determining the loss. In the first place, the payment is to be made for the articles as they stood on the day of the fire. Now, at that date, the ingredients had ceased to exist as separate articles, and, therefore, value would be taken either of articles which had no independent existence, or as they stood, on an earlier day than the date of the fire. In the second place, the pecuniary position of a manufacturer would, and possibly even his solvency might depend on the margin of value caused by the combination of the ingredients he had bought. The man who has built a house or a ship has put into the product not materials and wages only, but interest on capital, and a skill which is the fruit probably of years of experience, and not gained in the one structure. If he were only to get cost of ingredients and wages, then the result of insurance would be to make him as well off, not as on the day when the fire occurred, but as on the day before he began to build the house or the vessel. In fact, a manufacturer may, I think, in the case of finished goods, be regarded as a wholesale dealer or a warehouseman.

I am, therefore, unable to agree with the respondents as to the basis on which the claimants' loss on stock is to be computed.

(Initialled) J. M. I.

Indemnification—continued.

(The idea of an insurance company holding itself liable for "interest on capital," and for "skill," is an extremely original one. But even more extraordinary observations still will be found in connection with a yet more recent case, which, under the heading of "Machinery Valuations," I give some particulars of in the Appendix. In connection with this subject, *see* also "Building Damage," "Cost Price," and "Depreciation").

Ireland: Malicious Injuries or Incendiarism.

—The Act 6 & 7 William IV., cap. 116, which provides for the levying of a claim upon a county, barony, parish, townland, or other district, on account of damages sustained by an inhabitant through malicious injuries, does not make provisions for the sufferings of an insurance company. It seems clear that where the client of an insurance company is injured by a third party setting fire maliciously to his premises, it is *he* (the owner of the property) who should claim compensation from the county, not the company which insures him. The city and county of Dublin are specially exempt from the operations of this Act. The Acts applicable to Dublin are all embodied in 4 Vict. cap. 10, or referred to therein. For Dublin work, a solicitor should be employed without delay. Opinions differ as to whether this Act of William IV. applies to malicious fire-raising generally, or only to *purely agrarian* cases. The *Review* puts it (in an article in the issue for February 1st, 1882, which ought to be carefully perused), that supposing any person maliciously set fire to the stock in a draper's shop, a claim for compensation could not be lodged against the district. On the other hand, cases have been cited to me, and in every particular authenticated, in which the district *has* been made to pay for malicious fire damage to buildings or contents of groceries, inns, nunneries, and, in fact, a general assortment of risks. Where a company has taken the precaution to insert amongst its conditions words expressly stating that they will not pay for damage by fire which is the work of an incendiary, the insured sees at once that he must throw his loss on the district, but, in order

Ireland: Malicious Injuries—continued.

that the insured may not be left in the lurch between two stools, so to speak, the company's agent ought to help him and be on the alert, so that the necessary steps be taken in time. For this reason, the agent ought to make himself familiar with this Act, by reading the following sections of it, given in full here for his benefit, and by studying the accompanying set of "Instructions" thereon. The various forms necessary to be filled up in connection with claims under this Act are also given here in full.

Extract from the Act 6 & 7 William IV. :—

CXXXV.—And be it enacted, that from and after the commencement of this Act, in all cases of maliciously or wantonly setting fire to, burning, or destroying any house, outhouse or other building, or any haggard, corn, hay, straw or turf, or of maliciously setting fire to, burning, or sinking any boat or barge laden with corn or other provisions, or of maliciously killing, maiming, houghing, or injuring any horse, mule, ass or swine, or any horned cattle or sheep, or of maliciously damaging, injuring or destroying any bank, gate, lock, weir, sluice, bridge, dam or other work belonging to any person, public canal or navigation, any person or persons injured by any such offence, and intending to apply for compensation for any loss or damage sustained thereby, shall serve notice in writing of such injury, and of such, his or their intention, upon the High Constable of the Barony, and the Churchwardens of the parish, and at the nearest police station, or if there be no churchwarden, upon two of the principal inhabitants of the parish wherein such offence shall have been committed within six days, at least, after the commission of the same, and shall lodge with the High Constable or Secretary of the Grand Jury, in like manner and time as applications for presentments for Public Works are hereinbefore directed to be lodged, an application setting forth the loss or damage occasioned by such offence, and stating the time and place, when and where such injury was done, the particular property consumed, injured or destroyed, and the amount of damage thereby sustained, and by what number of persons, and by whom, by name and description, such injury was done, if such offender or offenders shall be known, and if not, stating such particulars respecting such offender or offenders as may be known, and like notices shall be posted of such application as hereinbefore prescribed in cases of other applications, to Presentment Sessions, and such application shall be scheduled by the Secretary of the Grand Jury, and by him dealt with in all respects as other applications under this Act; and the Presentment Sessions shall examine into the serving and posting the notices of such application, and into the merits of the same, and the chairman shall endorse their opinion thereupon, and such secretary shall deliver such application so endorsed to the Grand Jury at the next Assizes; and the said Grand Jury shall, during the time appointed for transacting the fiscal business of the county, examine into the matter of such application upon the oath of the party injured, or such other evidence as can be produced touching the said offence; and the said Grand Jury shall, on the consideration of the said matter, either disallow such application altogether, or present such sum or sums of money as the person or persons as

Ireland ; Malicious Injuries—continued.

to receive for such injury or damage, to be levied off the county at large, or such barony, parish, district, townland or sub-denomination thereof as the Grand Jury shall direct.

CXXXVI.—And be it enacted, That every application under this Act for compensation for loss or damage occasioned by any malicious injury as aforesaid shall be made at the next Presentment Sessions, which shall be holden after the commission of such offence for the barony, county of a city, or county of a town where the same shall have been committed, unless any such malicious injury shall have been done after the day appointed for holding the first Presentment Sessions after the Assizes for the county in which such injury shall have been done, or so near the day of holding the same that such application for compensation cannot be duly lodged as hereinbefore directed, in either of which cases the person or persons so injured shall make such application at the Presentment Sessions which shall be holden next but one after the time of the commission of such offence for the barony, county of a city, or county of a town where the same shall have been committed, and the notices of such application shall be posted accordingly, and it shall not be lawful for any Grand Jury to make any presentment for compensation for malicious injury under the provisions of this Act except at the Assizes next ensuing to the Sessions where application shall have been made therefore.

CXXXVII.—Provided always, and be it enacted, that every person or persons, who shall under the provisions of this Act apply for compensation for any loss or damage occasioned by malicious injury as aforesaid, shall within three days after the commission of the said injury, unless prevented by illness or other sufficient cause, give in his, hers or their examination upon oath, or that examination upon oath shall be given by his, her or their servant or servants who had the care of his, her or their property so injured before some Justice of the Peace of the County where such injury shall have been committed, thereby specifying whether he, she or they do know the person or persons who committed the said injury, or any of them, and in such case such examinant or examnants shall be bound by recognizance to prosecute such offender or offenders by indictment or otherwise according to the laws of this kingdom.

The forms hereafter following should be varied to meet the facts applying to each case, and the Agents should carefully observe the "Directions" at the end of each form.

Under the 137th section of the 6 and 7 William IV., cap. 116, an examination on oath or information must be made by the owner of the insured property, or by the servant having the care thereof within three days after such injury was committed.

The Local Agent should, therefore, on any suspicion of a malicious burning, immediately visit the locality, and get **the Insured**, or the servant having charge of the injured **make an information** in accordance with the

Ireland: Malicious Injuries—continued.

The Agent should, without delay, have the six days' notice of the malicious burning, prepared in accordance with Form B, and should have this notice served, and posted, in accordance with the detailed directions at the head of said Form.

The next proceeding is to give and lodge the ten days' notice for application for compensation to the Presentment Sessions, next after the offence, for the barony or city in which same was committed.

If the injury has been done so near the day for holding the said Presentment Sessions that the ten days' notice of application cannot be lodged, then the said notice should be given for the Presentment Sessions next but one after the offence.

Different forms of the ten days' notice must be given and lodged when the person committing the offence is known, and when unknown.

The forms of notice marked "C" and "D" have been prepared to meet each case, and the "directions" at the head of each of these forms should be strictly observed.

The attendance of the owner of the injured property, and of his witnesses, should be secured at the said Presentment Sessions, to support his claim.

Malicious Burnings.**FORM A. DIRECTIONS FOR AGENT.****Three Days' Notice.**

An information in the form below, or as near thereto as circumstances will permit, must be made by the owner of the injured property, or by the servant who had the care and charge thereof, within three days after the commission of the injury, before a magistrate of the county in which it happened. In calculating the number of days within which such Information should be made, the day on which the injury took place is to be reckoned, and also Sunday, and if the third day be Sunday, the information should be made on the Saturday preceding.

NOTE.—The information so made should be *left* with the magistrate.

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Ireland : Malicious Injuries—continued.

FORM OF INFORMATION, OR EXAMINATION UPON OATH.

Form of
Information.
"A"

I,
of _____ in the county of _____
do hereby make oath and declare that on _____ the
day of _____ 18 ____ the following property belonging to (1)
was, as I believe, maliciously set fire to and destroyed, viz. : (2)

I further say that I (3)

Name,
Profession, }
and
Residence. }

Made and subscribed before me, one of Her Majesty's Justices of the Peace
for the county of _____, this _____ day of _____ 18 ____ .

Signature of magistrate,

- (1). Me [or] to my employer, and of which I was in charge [as the case may be].
- (2). Set forth the nature of the property destroyed.
- (3). I do not know the person or persons, or any of them, who committed the said injuries [or], I believe the said injuries were committed by—[giving the names of the persons who committed the injury, if known].

Malicious Burnings.

FORM B.

DIRECTIONS FOR AGENT.

Six Days' Notice.

To whom
Notice to be
served upon. The following notice should be served upon the High Constable
of the barony, and the Churchwardens of the parish where the
offence has been committed, or if there be no Churchwardens,
then upon two of the principal inhabitants of the parish.

A copy of the notice should also be served and posted at the nearest police
station, and at the places (if any) appointed by the Grand Jury for posting
notices within each parish.

A copy should also be served on the Clerk of Petty Sessions for the
district.

These several notices must be served and posted *within six days* after the
offence has been committed. The day on which the offence was committed is
one of the six, and Sunday is also counted as one day. If the last of the six
days be Sunday, the notices must be served on the preceding Saturday.

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Ireland: Malicious Injuries—continued.

FORM OF SIX DAYS' NOTICE.

Form of Notice.
" B "

County of _____
 To _____ High Constable of the Barony
 of _____
 and _____
 and _____
 Churchwardens of the parish of ⁽¹⁾ _____
 You and each of you are hereby required to take notice that on
 the ⁽²⁾ _____ of _____ the _____ day of
 _____ 18 _____, on the lands of
 _____ in the parish of
 _____ in the barony of
 _____ in this county ⁽³⁾

being my property and of the value of £ _____ was
 maliciously set fire to and ⁽⁴⁾ _____ destroyed, and that it is
 my intention to apply, pursuant to the 6th and 7th William IV.,
 cap. 116, to the Presentment Sessions, to be held on the ⁽⁵⁾ _____
 day of _____ next, at
 _____ for the barony of _____ in the county of _____
 for compensation for the loss sustained by me by reason of the
 said malicious injury done to my property as aforesaid, and that
 same may be levied off the county at large, or off such barony,
 parish, district, townland, or sub-denomination thereof, as the
 Grand Jury shall direct.

Dated this _____ day of _____ 18 _____.

(Signed)

 Owner's Name,
 Residence,

- (1) State names of barony and parish where offence was committed.
- (2) Night [or] day [as the case may be].
- (3) Describe the property injured.
- (4) State whether wholly or partially destroyed.
- (5) If there are not ten clear days between the date of said offence and the holding of the next Sessions, the date of the Presentment Session next but one should be inserted.

Malicious Burnings.

FORM C. DIRECTIONS FOR AGENT.

Ten Days' Application.

The following notice of application must be signed by the owner in person, and shall be lodged with the High Constable of the barony in which the offence has been committed, or with the Secretary of the Grand Jury, at least ten days before the day of holding the Presentment Sessions at which compensation is to be sought. A copy should also, for the same period, be lodged with the Clerk of the Petty Sessions for the district, and posted on the nearest police barrack, as well as on the places, if any, appointed by the Grand Jury for posting notices within the parish. This form is to be used only where the persons committing the offence are unknown.

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Ireland: Malicious Injuries—continued.

FORM OF APPLICATION WHERE OFFENDER IS UNKNOWN.

County of }

"C" WHEREAS, some person or persons, at present wholly unknown, on the night of or early on the following morning, on the lands of in the parish of and in the barony of in the said county, did maliciously set fire to and (1) destroy (2), and whereas the said (3) so maliciously destroyed and burned as aforesaid (3) my property, whose name is hereto subscribed with my own proper hand, and of the value of (4) pounds, shillings, and pence. I now hereby notify to and apprise all persons concerned that I, or some person on my behalf in case of my unavoidable absence, will apply to the Presentment Sessions, to be held on the day of next, at for the barony of and county of for compensation for the loss sustained by me by reason of the malicious injury done to my said property aforesaid, and that the said application will be made by me, or on my behalf in case of my unavoidable absence, in pursuance of the 135th section and chapter 116 of 6 and 7 William IV., entitled "An Act to consolidate and amend the Laws relating to the presentment of Public Money by Grand Juries in Ireland," and that said compensation may be levied off said county or such barony, parish, district, townland, or sub-denomination thereof as the Grand Jury shall direct.

Dated this day of 18 .

(Signed) Owner.

- (1) Wholly [or] partly.
(2) Fully describe the property.
(3) Were [or] was.
(4) Give value in words and not in figures.

Malicious Burnings.

FORM D. DIRECTIONS FOR AGENT.

Ten Days' Application.

The following form of notice of application is to be used when the owner either knows the person or persons who perpetrated the offence, or can give a description of him or them, or any of them. This notice is to be signed, served and posted, when it is applicable, in the same manner as notice marked "C."

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Ireland: Malicious Injuries—continued.**FORM OF APPLICATION WHERE OFFENDER IS KNOWN.**

County of }

"D" WHEREAS (1) of (2) in this county, with other or others at present unknown, but of one of whom the following particulars have been ascertained:—(3) did on the night of or early the following morning on the lands of in the parish of and in the barony of in the said county did maliciously set fire to and (4) destroy (4) and whereas the said (4) so maliciously destroyed and burned as aforesaid (4) my property whose name is hereto subscribed with my own proper hand, and of the value of (7) pounds shillings and pence. I now hereby notify to and apprise all persons concerned that I, or some person on my behalf in case of my unavoidable absence, will apply to the Presentment Sessions to be held on the day of next, at for the barony of and county of for compensation for the loss sustained by me by reason of the malicious injury done my said property as aforesaid, and that the said application will be made by me, or on my behalf in case of my unavoidable absence, in pursuance of the 135th section and chapter 116 of 6 and 7 William IV. entitled, "An Act to consolidate and amend the laws relating to the Presentment of Public Money by Grand Juries in Ireland," and that the said compensation may be levied off said county or such barony, parish, district, townland or sub-denomination thereof as the Grand Jury shall direct.

Dated this day of 18

(Signed)

Owner.

- (1) Name of person who committed the offence.
- (2) Now [or] late.
- (3) Describe appearance and dress fully of the person suspected.
- (4) Wholly [or] partly.
- (5) Fully describe the property.
- (6) Were [or] was.
- (7) Give value in words and not in figures.

Jack-in-the-box.—In cotton mill machinery, this is a combination of six bevel wheels, by means of which what is known as the "differential" motion in winding is produced. "Friction" (that cause of so many fires) is the special enemy to be feared in connection with this combination of wheels. Four of the wheels have to be

driven at the rate of 400 revolutions per minute. Some, also, of the wheels run contrary to the shaft on which they turn—doubling the speed, and thereby making the question of wear and tear a most serious one.

Jute Velvet.—At the Technical Society of Riga, a velvety tissue has recently been produced, of which the ground was made of cotton, and the pile of jute. When this comes out of the loom, it is printed with a pattern like curtains in the following manner:—The pile is pressed or embossed by means of hot plates or rollers, from which the designs project. By these means, a sunken pattern is produced, which shines like satin, the parts of the velvet not pressed remaining unaltered. The back of the tissue is damped with lime-water to prevent the pile from rising. A solution of shellac in spirits of wine is sometimes used for the last-named purpose.

K.


Kier.—In bleach works, this is the cylindrical iron vessel in the bowking (or “bucking”) house, in which the goods are boiled and otherwise treated with alkaline compounds.

Kieselguhr.—A silicious material (the silicious shells of diatoms) hitherto found only in Germany, but large and valuable deposits of which have recently been discovered near Kinnard, Deeside, Scotland. It is used in the manufacture of dynamite, of some polishing powders, and also in making artificial ultramarine.

Kips.—Hides under 25 lbs. weight.

Kitchen Boiler Explosions.—The Manchester Steam Users' Association issue the following instructions in regard to kitchen boilers:—“Kitchen boiler explosions are due to an accumulation of pressure in the boiler in consequence of the outlets being stopped up while the fire is burning. These explosions occur during the frost

through the choking up of the pipes with ice. Sometimes stop-taps are placed in the circulating pipes, and should these taps be shut, or should the circulating pipes become choked with sediment or stopped up from any other cause, the pressure would then be bottled up, and an explosion might result at any time, whether summer or winter. To prevent this, every boiler should be fitted with a small reliable safety-valve, whether the boiler be of copper or cast-iron, and whether it be fitted with a copper cylinder or not. A safety-valve of dead weight construction is recommended as the most simple. In the event of the outlets becoming choked, it would relieve any undue pressure and prevent an accumulation, while, at the same time, it would emit a slight hissing noise, which would tell those in the kitchen that something was wrong. In the meantime, until a safety-valve can be fixed, open the hot-water tap in the bathroom, and any other hot water taps connected with the boiler. If the water cannot be drawn freely from these taps, do not light the fire; and if the fire be already lighted, put it out at once. If the water flows freely, the fire may then be lighted, but this must be done with caution, and the taps just described frequently opened to see that the flow continues, and that the water gradually heats. If the flow does not continue, or if the water does not heat, the supply of water to the boiler must be running short, or something must be wrong with the circulation, and the fire must be drawn. Also the cold water cistern, as well as the ball-tap, should be examined, and the cold water taps in the bathroom and elsewhere be opened to see that the water supply is free, otherwise the boiler may run dry. When the fire is once lighted, and the circulation proved to be free, the fire should be kept burning by night, as well as by day, as long as the frost lasts, otherwise the frost may get the mastery during the night, choke the pipes with ice, stop the circulation, bottle up the pressure, and thus lead to the bursting of the boiler. But the only true safeguard is a reliable safety-valve, and the sooner that is fixed to the boiler the better."



L.

Lampblack.—If packed in a leaky cask when freshly papered, condenses the atmospheric gases on its surface, which, owing to the porous nature of the substance, is very large in proportion to its weight. In condensation, the gases give out a certain amount of heat, which, under favourable circumstances, is sufficient to cause the ignition of some inflammable substance accidentally present, which, by combining with the condensed oxygen, liberates heat enough to cause the ignition of the vegetable black, which, when once started, soon spreads until the contents of the cask become red-hot. This spontaneous ignition is not infrequent in many large carriage factories; and builders' shops have been destroyed solely from this cause. The firm of Wilkinson, Hayward & Co., London, pack the lampblack in half-pound packets, done up in brown paper, and then packed in casks. To put it in printed paper would insure ignition, from the absorption of the oil in the printing ink by the lampblack. It is not the *large* quantity of oil, but the *small* quantity, which is the cause of it. This is so well known, that some coachmakers, when they receive lampblack, put it into a sound cask, and pour enough linseed oil into it to saturate the whole.—From the November number, 1882, of the *Insurance Gazette of Ireland*.

Leatheroid.—Leatheroid is a new article which is being made of paper. It consists of a number of thicknesses of cotton paper wound one upon another over a cylinder. The remarkable qualities of strength and adhesion it possesses are derived from a chemical bath, through which the paper is drawn on its way to the cylinder. The effect of the chemical bath on the paper is said to be wonderful. Leatheroid, for the purpose it now serves, consists of about twenty thicknesses of paper; it is shaped upon or around moulds, while wet, into the form it is to represent, and will hold that form perpetually when dry. When dried, it is as difficult as raw hide to cut

with a knife. A company has been formed at Kennebunk, Me., U.S.A., for the manufacture of this article, and will at once build a large mill there for that purpose. This company is making, for introduction into the mills, roving cans, boxes, &c., to take the place of tin cans and wooden boxes. Cans made from this material are about one-fourth the weight of tin cans of equal size; while tin cans are liable to get bent, cans made from Leatheroid are entirely free from this objection. They have the elasticity of thin steel, and no amount of kicking or hauling will break them. Orders have already been received from several large mills for their roving cans and boxes, which are made seamless. This substance is also used for covering pulleys to a large extent, making one of the smoothest and most lasting coverings which can be obtained.

Leer Pan.—A shallow iron tray in connection with annealing furnaces.

Lessor and Lessee: Insurance Clause.—Section 14 of the Conveyancing and Law of Property Act, 1881, provides, with regard to restrictions on and relief against forfeiture of leases, as follows:—

(1) A right of re-entry or forfeiture under any proviso or stipulation in a lease, for a breach of any covenant or condition in the lease, shall not be enforceable, by action or otherwise, unless and until the lessor serves on the lessee a notice specifying the particular breach complained of, and, if the breach is capable of remedy, requiring the lessee to remedy the breach; and, in any case, requiring the lessee to make compensation in money for the breach, and the lessee fails, within a reasonable time thereafter, to remedy the breach, if it is capable of remedy, and to make reasonable compensation in money, to the satisfaction of the lessor, for the breach.

(2) Where a lessor is proceeding, by action or otherwise, to enforce such a right of re-entry or forfeiture, the lessee may, in the lessor's action, if any, or in any action brought by himself, apply to the Court for relief; and the Court may grant or refuse relief, as the Court having regard to the proceedings and conduct of the parties under the foregoing provisions of this section, and to all the other circumstances, think fit; and in case of relief may grant it on such terms, if any, as to costs, expenses, damages, compensation, penalty, or otherwise, including the granting of an injunction to restrain any like breach in the future, as the Court, in the circumstances of each case, thinks fit.

(7) This sub-section repeals section 4 of Lord St. Leonards' Act.

(9) This section applies to leases made either before or after the commencement of this Act, and shall have effect, notwithstanding any stipulation to the contrary.

Lessor and Lessee—continued.

In the cause "Quilter *v.* Mapleson" heard before the Master of the Rolls and Lords Justices Lindley and Bowen on June 19th, 1882, the first-named said :—In his opinion the Conveyancing Act applied retrospectively. That was plain beyond question. It would be extraordinary if breaches in future were to be relieved against, but breaches already committed left. The Lords Justices Lindley and Bowen concurred. (*See* also "Mortgagor and Mortgagee.")

The subject, viewed in its entirety, presents so many complicated points for consideration (*see* "Mortgagor and Mortgagee," and also "Rent" in connection therewith) that a separate treatise would be necessary to do full justice to the insurance aspect of the question alone, and I much regret, therefore, that space will not permit of such treatment here. So I will only remark that the Associated Offices have, within the last twelve months or so, very properly agreed amongst themselves that, in building loss adjustments, separate policies in the separate names of mortgagor and mortgagee, or lessor or lessee, or bailor and bailee, shall be treated as if they were all concurrent in every respect, or as if they were all running in the joint names. This will prevent many disputes; but I would add a suggestion that, in connection with such an adjustment, each office should draw its cheque and have its form of discharge signed in the joint names, and not in the name merely in which its policy happens to stand. No settlement should be closed until the lease or mortgage deed has been examined by the assessor, or by the manager or other responsible official of the office directing the adjustment. For the terms and conditions of a lease vary very much, and it may turn out that a lessor's policy represents an insurable interest which, in part at least, is *not* on all-fours with the interest covered by the policy of the lessee—*i.e.*, that both policies were not intended to cover exactly the same details of the same property. For instance, a covenant in a lease may show that the lessor is liable to ~~keep the outside walls, roof, and principal bearing timbers~~ ~~of the structure.~~ ~~It is the lessee's duty to attend to~~ ~~of the structure.~~ Under the

Lessor and Lessee—continued.

new Act, a lessor cannot recover the value of his destroyed property under a policy effected by him and at the same time receive the value from his lessee. Nor can a lessor, to whom a lessee owes arrears of rent in addition to the obligation to restore the property in good condition, compel the insurance company in which the lessee is insured to hand over the insurance money to him (the lessor) without the lessee's consent, although he may afterwards succeed in recovering the money from the lessee himself. Pending the institution of legal proceedings to effect that purpose, however, the lessee may have decamped with the money, and this is one reason why a lessor should effect an insurance (with an item on rent), as well as and in addition to any insurance effected by the lessee, and that the sums of loss payable under both policies should be handed over to the lessor and lessee jointly by the medium of cheques drawn in the joint names. Of course by 14 Geo. III. cap. 78, a lessor may serve notice upon the office which has issued a policy on the leased property in the lessee's name, that he requires the insurance money to be expended in the reinstatement of the premises, but he cannot touch the money itself. There are, indeed, instances in which an insurance company may be restrained, by arrestment, from paying over the money to its client until the rights of all parties have been established, but this is only *suspension* of payment: it is not *diversion* of payment.

A case recently decided in the Sheriff-Court of Kincardineshire (*Graham v. Smith*), may fitly be quoted here as an instance of what a lessor sometimes considers he is justly entitled to as his "pound of flesh." A landlord summoned his tenant for value of buildings and machinery in the mill of Morphie, destroyed by fire in 1866 and 1879. The pursuer pleaded that the defendant had failed to insure these subjects in terms of an obligation to that effect in the lease. The defendant said the proprietor (the plaintiff or pursuer) had taken this burden on himself, he (the defendant) actually paying the premium to him yearly along with his rent, and that the landlord (the plaintiff or pursuer) had actually obtained the policy money from the insurance

company. It is satisfactory to know that judgment was given for the defendant with costs.

Liability. (*See* "Dyer's Responsibility.")

Liability of Warehousemen. (*See* "Warehousemen.")

Liability of a Co-insuring Office. (*See* "Rateable Proportion.")

Lubrication of Wool:—Use of Iceland Moss.—The cost of oil for lubricating the wool is a considerable item in a woollen mill. Many ways have been tried to reduce this item, and several substitutes have been used with only indifferent success. In France steam has been tried on the principle that wool is a hollow tube which can be filled with steam, and that, being a horny substance, it is softened and made supple by heat, but as the moisture leaves the wool almost as quickly as it takes it up, these attempts have proved futile, though an addition of water to the oil has yielded a certain advantage. Thus, a good mixture is made of 100 lbs. water, 40 lbs. oil, 3 lbs. soda ash, and 4 lb. to 5 lb. soap, as used for milling. Some spinners (country ones, evidently) have added to the oil double its quantity of milk, or milk and water; or one-third oil, two-thirds water, with a few pounds of soda, are taken. It is always of importance that the oil and the water should be well mixed, and for that purpose a little soda is of use. A better amalgamation can, however, be obtained by the addition of Iceland moss (Caragheen). It is nothing new, but we believe not known to many spinners, and is of advantage with dark coloured goods and yarns which are made of dyed wool. Where goods are dyed light colours in the piece it is not to be recommended, as the cloth then may easily get mottled.—On the whole, however, Iceland moss can be used with great advantage and a considerable saving in oil.

It is used in the following manner:—In a wooden vat about 18 buckets of water are put, and steam introduced

into it to boil. About 3 lbs. soda-ash is then introduced. After which 4 lbs. to 5 lbs. Iceland moss is put into a bag, and the latter, well tied, placed into the soda bath. The steam tap is then opened, and the water boiled for about four hours, while it is stirred about once every hour. The bath takes up this way a certain quantity of the gelatine which is made from the moss, and varies in strength according to its quality. When the mixture has cooled a little, three parts of this are mixed with one part of oil. Where olein is used instead of oil the mixture must be boiled a little after it has been made. A little practice will show how much moss should be taken, for too much is not good, and when enough gelatine has been extracted from the bag, the remainder may be used for the next mixing.

For 20 lbs. white wool, 4 quarts of the mixture, and 1 pint water are to be taken ; for dyed wool $4\frac{1}{2}$ quarts, and from 1 to 2 pints of water.

Iceland moss is a *lichen*, yielding, after treatment, a gelatinous compound. It consists of 37·33 carbon, 7·24 hydrogen, and 55·43 oxygen.—*Textile Manufacturer*.

Lustring Machine for Hanks.—The process of lustring or polishing dyed yarn in the hanks consists in steaming it in a steam-tight chamber while it is being turned and stretched on stretching rollers. As each kind of roving and sometimes each hank of a lot is not always exactly of the same length, the distance between the rollers must be regulated, which is done by the attendant turning a screw until he feels that the yarn is sufficiently stretched. To do this automatically is the object of a machine which has been recently patented.

Lightning Conductors.—The following rules are abstracted (nearly *verbatim*) from the "Report of Lightning Rod Conference," 1882, published by Messrs. E. and F. N. Spon, 16, Charing Cross, and edited by G. J. Symons, F.R.S., President of the Meteorological Society, and Secretary to the Conference.

Reasons, based on practical and theoretical evidence,

Lightning Conductors—continued.

are given at length in the report for each rule and recommendation:—

1. *Material of Rod.*—Copper, weighing not less than 6 oz. per foot run, the electrical conductivity of which is not less than 90 per cent. of that of pure copper, either in the form of rod, tape, or rope of stout wires; no individual wire being less than No. 12 B. W. G. (.109). Iron may be used, but should not weigh less than $2\frac{1}{4}$ lbs. per foot run.

2. *Joints.*—Every joint, besides being well cleaned and screwed, scarfed, or rivetted, should be thoroughly soldered.

3. *Form of points.*—The point of the upper terminal* of the conductor should not have a sharper angle than 90 deg. A foot below the extreme point a copper ring should be screwed and soldered on to the upper terminal, in which ring should be fixed three or four sharp copper points, each about six inches long. It is desirable that these points should be so platinised, gilded, or nickel-plated, as to resist oxidation.

4. *Number and height of upper terminals.*—The number of conductors or upper terminals required will depend upon the size of the building, the material of which it is constructed, and the comparative height above ground of the several parts. No general rule can be given for this, except that it may be assumed that the space protected by a conductor is, as a rule, a cone, the radius of whose base is equal to the height of the conductor from the ground.

5. *Curvature.*—The rod should not be bent abruptly round sharp corners. In no case should the length of a curve be more than half as long again as its chord. A hole should be drilled in string courses or other projecting masonry, when possible, to allow the rod to pass freely through it.

6. *Insulators.*—The conductor should not be kept from the building by glass or other insulators, but attached to it by fastenings of the same metal as the conductor itself is composed of.

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Lightning Conductors—continued.

7. *Fixing.*—Conductors should preferentially be taken down the side of the building which is most exposed to rain. They should be held firmly, but the holdfasts should not be driven in so tightly as to pinch the conductor, or prevent contraction and expansion due to changes of temperature.

8. *Other metal work.*—All metallic spouts, gutters, iron doors, and other masses of metal about the building should be electrically connected with the conductor.

9. *Earth connection.*—It is most desirable that, whenever possible, the lower extremity of the conductor should be buried in permanently damp soil. Hence proximity to rain-water pipes and to drains or other water is desirable. It is a very good plan to bifurcate the conductor close below the surface of the ground, and to adopt two of the following methods for securing the escape of the lightning into the earth:—

- (1) A strip of copper tape may be led from the bottom of the rod to a gas or water main (not merely to a leaden pipe), if such exist near enough, and be soldered to it.
- (2) A tape may be soldered to a sheet of copper 3 ft. by 3 ft. by 1-16th in. thick, buried in permanently wet earth and surrounded by cinders or coke.
- (3) Many yards of copper tape may be laid in a trench filled with coke, having not less than 18 square feet of copper exposed.

10. *Protection from Theft, &c.*—In cases where there is any likelihood of the copper being stolen or injured, it should be protected by being enclosed in an iron gaspipe reaching 10 ft. (if there is room) above ground and some distance into the ground.

11. *Painting.*—Iron conductors, galvanised or not, should be painted. It is optional with copper ones.

12. *Inspection.*—When the conductor is finally fixed, it should in all cases be examined and tested by a qualified person, and this should be done in the case of new buildings after all work on them is finished.

Lightning Conductors—*continued.*

Periodical examination and testing, should opportunities offer, are also very desirable, especially when iron-earth connections are employed.

There is another theory coming to the front regarding the proper functions and treatment of lightning rods, as the following extract from the *Finance Chronicle* of Oct. 16th, 1882, will show :—

As an example of the diversity of opinion on the subject, we have before us a new work, entitled "The action of Lightning," by Major Parnell, R.E. (Crosby Lockwood & Co.). In some respects the book is an admirable one, giving as it does the most concise and practical summary of facts and opinions and of the theory of lightning-rods which we have. But when he comes to recommend measures for protecting buildings and areas we find him utterly at variance with all recognised systems, whether of the practical electricians, the lightning-rod makers, the lightning-rod conference, or the department of the Home Office of which Mr. Majendie is chief. The earth and not the atmosphere being the great storehouse of electricity, Major Parnell holds that the thunderbolt or discharge of lightning comes from the earth, and not from the clouds, and that any proper system of protection should be directed from the earth upwards, and not from the apex of the building downwards. In short, the function of the conductor is to tap the earth and not the air. The earth terminal is the most important part of the conductor, and the stalk of the conductor is dangerous, or an "unmitigated disadvantage." Or, in his own words : " 1. The protector must be arranged so as to tap the ground lying close around the building, a feature to be defended to the maximum extent. 2. It must have *no stalk* or exposed elevated surface of metal." By this means it fulfils another condition strongly contended for by Major Parnell, and a very good condition it is, viz., that "it must be cheap to erect." We cannot here enter into the several important questions opened up here. The theory and the art consequent thereon are entirely novel, and while we would say that we respect the author for the ability and courage

shown by him in the ground taken up, we think it will be the general opinion that he goes too far—so far, indeed, as to defeat his purpose for any good it will have in improving the system of protection of life and property from the destructive effects of lightning storms (a more accurate term we think for use in our pages than thunderstorms.)

Linoleum.—A floor-cloth composed of boiled linseed oils, gums, and pounded cork. The first stage in the manufacture of this material is the oxidation of the oil, which is done as follows:—Sheets of cotton-cloth are suspended from iron rods, an inch or two apart, in the oil-preparing houses. The sheets are then drenched with oil from an overhead apparatus supplied from the pump-house. The room being now heated up to about 90°, the oil speedily hardens on the cloth; and the same process is repeated, until each sheet becomes a skin of congealed oil about half-an-inch thick. The sheets are then taken down and removed to the mixing-house, where the stuff is cut up and bruised between rollers until it becomes pulpy. Powdered gums are then added, and the mixture is placed in pans heated by steam, to be boiled down. The composition thus formed constitutes the cement or binding material of the linoleum. Having been poured into a mould and allowed to set, the cement is once more bruised between rollers, and finally mixed with ground cork, which completes the process. The composition thus obtained resembles fine loam in appearance, and in this condition it is applied to the canvas. This operation is performed as follows:—The canvas (woven of flax, with a little hemp) is stretched in an upright open frame of oaken bars, in which position it is brushed over with glue size, and then rubbed smooth with pumice stone; it next receives the coatings of the composition already described. In the printing-room, the cloth is spread flat on a table, and the various figured designs are impressed upon it by means of wooden blocks, as in the block-printing of calicoes or papers. In connection with these printing-tables, surveyors should look out to see that the leather coverings are not worn away from the pads of cotton. Sometimes

the cotton padding is left exposed, thus rendering itself liable to getting saturated with the oil paint. It is needless, of course, to remark, that such a state of things might readily result in spontaneous combustion.

M.

Mortgagor and Mortgagee.—The “Conveyancing and Law of Property Act, 1881,” came into force on 1st January, 1882. The 19th section confers upon a mortgagee the following among other powers:—1. A power, at any time after the date of the mortgage deed, to insure and keep insured against loss or damage by fire any building, or any effects or property of an insurable nature, whether affixed to the freehold or not, being or forming part of, the mortgaged property. Also, “The amount of an insurance effected by a mortgagee against loss or damage by fire, under the power in that behalf conferred by this Act, shall not exceed the amount specified in the mortgage deed, or, if no amount is therein specified, then shall not exceed two-third parts of the amount that would be required, in case of total destruction, to restore the property insured.” Here the Act obviously proceeds upon the rule which is generally applied to advances on mortgages by trustees, that the amount so advanced ought not to go beyond two-thirds of the value of the property. The mortgagee is not, however, under the power conferred by the Act—that is to say, in the absence of specific powers contained in the mortgage deed itself—to effect an insurance in any of the following cases:—

1st. Where there is a declaration in the mortgage deed that no insurance is required.

2nd. Where an insurance is kept in force by or on behalf of the mortgagor, in accordance with the mortgage deed.

3rd. Where the mortgage deed contains no stipulation respecting insurance, and an insurance is kept up by and on behalf of the mortgagor to the amount (at least) in which the mortgagee is, by this Act, authorised to insure.

This Act further provides for, or rather defines the principle, that the money which is received in respect of a policy is to be treated as something which has been received in lieu of the property destroyed. This part of the Act really represents the *crucial* change which is effected by it. The provision alluded to is as follows:—“All moneys received (by the mortgagor?) under the mortgage deed or under this Act shall, if the mortgagee so requires, be applied by the mortgagor in making good the loss or damage in respect of which the money is received.” And again:—“Without prejudice to any obligation to the contrary imposed by law, or by special contract, a mortgagee may require that all money received on an insurance be applied in or towards the discharge of the money due under his mortgage.”

The *Insurance Agent* says:—“The result would seem to be, that the new law will introduce very marked changes in cases where the mortgage deed is SILENT, but that the parties will still be free to make their contracts what they please.”

The *Review* (March 29, 1882) says, with regard to the law as it formerly stood under Lord St. Leonards' Act:—

“Suppose the lessee was bound by his covenant to insure in the North British, and he insured in the National, the landlord would get the benefit of the policy. Messrs. Clerke and Brett point out that this section has been repealed by the present Act without any corresponding provision being substituted in its stead. This is possibly an oversight, but it would seem that practically the result is the same. Messrs. Clerke and Brett's note on this point is as follows:—‘But a policy of fire insurance being a contract of indemnity, and 14 Geo. III., c. 78, having been decided to be a general enactment, the landlord would seem to be entitled to require any money recovered under an informal insurance to be laid out in reinstating the premises.’ The authorities cited for this proposition are the case of *ex-parte* Goreley, decided many years ago by Lord Westbury, and the very recent case of *Darrell v. Tibbetts*, upon which we have commented in these columns. The practical point, however, to remember is, that the statute law as to informal insurances is repealed, though probably the Courts would decide on the authority of these cases that the owner of the property would be entitled to the policy money.”

Moslings.—Leather shavings, resulting from the skin-dressing process.

Mule Spinning.—The origin of the term “Mule” is traceable to the fact that the Mule was the result of a combination of the principal of Hargreaves’ “jenny” with the old water-twist frame. Crompton was the inventor.

Mule-headstock (Friction in).—One of the most frequent causes of fire in cotton mills is “friction in the mule-headstock.” The top back pulley—which runs at the rate of over 1,000 revolutions per minute—is the most frequent transgressor, but the bottom back pulley (the larger one), which runs at about 800, also contributes its quota. Experts say that, in the old days, when the pulleys were “bushed” in brass, and run on wrought-iron, they were safer than they have been since the adoption of cast-iron studs. Surveyors should look askance upon mills in which the mule-headstocks cannot be lubricated without stopping the machinery; they should also recommend that the headstock be shut off from the mule carriage ends, and from the adjacent portions of carriage bottoms, by fixed sheet-iron plates.

Muslins in Dyer’s hands.—(See “Dyers’ Responsibility”).

Myrobalons.—A dried fruit used in tanning and dyeing. Owing to its dry nature and general hardness, insurance experts look upon it with disfavour when found on the premises of a dyewood grinder.

N.

Nankeen Dye (Scott’s).—A solution of Arnatto and Potash used in Calico Printing. (See “Arnatto.”)

Negligence after a Fire (see “Damage by Fire in adjoining Premises.”)

Non-concurrency of Wording (see “Range of Policies.”)

Noils.—The term used in the Worsted trade for the short wool taken from the long staple by the process of

combing, and which is used to give apparent solidity or thickness in the handling of the cloth.—(*Ure's Dictionary of Arts, &c.*)

O.

Obligation to Insure (*see* "Lessor and Lessee.")

Oils.—In *Mears v. the Humboldt Insurance Co. of America*, there was a clause making the policy void "if the insured shall *keep* or *have* on the premises Benzine and other similar products." The assured bought some benzine on one occasion, and used it for cleaning some machinery. The Court held that the words "keep or have" meant permanent or habitual storage of prohibited articles, and not an occasional introduction for a temporary purpose.

Oils: Adulteration of Olive Oil with Cotton-seed Oil.—Prof. Zecchini recommends the following method for detecting if cotton-seed is mixed with olive oil. Pure uncoloured nitric acid, of 1.40 sp. gr., is mixed with half its volume of the oil. The two liquids are mixed in a tube which is then stopped with an indiarubber stopper. The mixture is well agitated for a few moments, and then left to rest for five or six minutes, after which time the oil comes to the top. When the olive oil is pure, the liquid, which is at first white or lightly straw-coloured, takes a light ash-grey colour with a yellowish tint. Cotton-seed oil, on the contrary, takes at first a golden-yellow colour, and changes to a dark-brown, almost black. A mixture of the two oils takes an intermediary colour, which is darker when the proportion of cotton-seed oil is greater. This *colour-test* has to be made five or six minutes after mixing the oil with the acid, as olive oil would also become dark, after a certain time, under the influence of the acid. By this method it is said that the presence of cotton-seed oil in olive oil can be detected, even if the proportion of the cotton-seed oil is only 5 per cent.

Olive oil takes fire in from 12 to 21 hours. An inferior kind of Gallipoli will char at about 6½ hours, but the best Gallipoli will not fire under 12 hours. Mineral oil, being more volatile than olive, lowers the firing point (artificial heat), but, being less inclined to spontaneous combustion, raises the time required.

Order, Particulars of, given by proposer, when about to effect an Insurance. (*See* "Contract of Insurance.")

Organzine.—A very wiry, compact, and strong silk thread, produced by first twisting the raw singles in one direction, next doubling them, and then twisting them together in the opposite direction.

P.

Paper and Painting in Dwelling-houses (*see* "Dwelling-house Insurance.")

Pari Passu.—A legal term, meaning, literally, "on equal footing." It is frequently found in endorsements on policies drafted by solicitors, in respect of the various interests in the contract of insurance. Thus, if a policy be endorsed in favour of A, B, and C, with provision that, in the event of loss by fire, the insurance money shall be rateably divided, *pari passu*, between all the interested parties, in proportion to the amounts of their respective rights, it means that none of them shall be paid before the others, but that they must all stand "on equal footing."

Particulars of Insurance, Order or Draft, under which Policy is to be prepared.—(*See* "Contract of Insurance.")

Pawnbrokers' Pledges.—When a pledge is destroyed or damaged by fire, the owner can only recover a sum equal to one-fourth of the amount received when the article was put in pawn. If, for instance, a gold watch worth, say, £20, were pledged for £5, the owner would only be entitled to receive 25s., if the pawnbroker was able

to prove that the timepiece had been consumed in a fire on his premises. The law seems to be quite plain on the point; and, indeed, it was highly necessary to fix some limit beyond which the liability of pawnbrokers should not extend, otherwise, every fire would be followed by a flood of inflated claims for compensation, to the utter ruin of the burnt-out trader."—(*Police and Fire*, Sept., 1881.) The Act does not apply to Ireland.

Pellones.—Sheepskins, when dressed for saddle-cloths.

Pelts (or Peltries).—The sheepskins, which, after having been stripped by the fellmonger of the wool adhering to them, are in the hands of the parchment manufacturer or leather dresser.

Picric Acid (*see* "Explosions").—An acid much used by dyers in obtaining yellow colours.

Piece Boards or Rolling Boards.—These boards are extensively manufactured at many saw-mills in and around Bradford. They are used in the Bradford trade to roll or fold the piece goods upon, and have a thin layer of paper pasted on to them. Their manufacture very much increases the hazard ordinarily attending saw-mill risks, and special enquiry ought to be made as to whether it is carried on, when the case is that of a saw-mill in the neighbourhood of Bradford.

Pillow.—A species of common or plain fustian of the coarsest kind.

Pirn and Pirn Winding.—Exclusively Scotch terms. Synonymous with "Bobbin" and "Bobbin Winding."

Plan Drawing (*see* "Surveying and Plan Drawing.")

Plating.—Putting a thin layer of silk on a foundation of cotton.

Plinth.—That part of a wainscoting or skirting-board which stands out from the rest of the panneling.

Poak.—Fellmongers' waste or refuse.

Polverine.—The ashes resulting from glass making.

Porcupine.—In cotton mills, this is a machine which is sometimes found in the “mixing” room, acting as an assistant to the ordinary “Crighton” or other opener of the cotton, preparatory to the cotton entering the “blowing” machine in the “scutching” room underneath. The “Porcupine” tears with its spikes the cotton which is afterwards passed down from it, through a metal spout, to the other opening machine in the room below, where the process thus commenced is finished. The “Porcupine” is not now looked upon with quite so much disfavour by insurance men as it was when its action had not become so familiar as it is now.

Printed Conditions (*see* “Covering Note.”)

Proposal to Insure, terms of (*see* “Contract of Insurance.”)

Proposer, Character of.—Although some offices, more careful in the selection of their business than others, book the names of suspected persons so as to avoid being entrapped into contracts which may turn out disastrously, it is to be regretted that there is no uniform system common to all companies whereby undesirable customers may be kept off the books, no matter how they may change their business, or under what disguise they may next present themselves. Take a case in point:—A. kept a house of public entertainment in a town where office B. had its head establishment. Had A. gone to office B. with a proposal to insure his place, he would have been unsuccessful, for his character, and that of his establishment, was well known. Ultimately, A. is prosecuted by the police for allowing disorder and gambling on his premises, is fined heavily, and disappears from that town and is lost sight of for some years. Eventually he turns up in a town situated in another part of the country, where office B. has an agency. A. enters into the same line of business again, *in the same name* (no disguise whatever is attempted), and sends in a proposal to the agency of office B. for an insurance upon his new

premises, and his proposal is accepted by the agent, and eventually confirmed by head office. Time goes on, and the "old Adam" in A. once more asserts itself, and he falls into the bad books of the police. He is officially informed that his licence will not be renewed, and on the very day his licence expires his establishment is burned to the ground! *Verbum sap.* But, had office B. kept a proper register of these matters it might have been spared much vexation of spirit. I would suggest the keeping of a "Black Book," under some such title as the "Traders and Manufacturers' Antecedents and General Reference Book." Let a responsible and conscientious official be appointed to read through the leading provincial newspapers and trade journals periodically. Let him note down in the book I have referred to all bankruptcies, or suspensions of payment; all instances of strikes or discontent openly manifesting themselves amongst the work-people of certain firms (incendiary fires often spring out of strike movements, and there is often a mysterious connection between frequently recurring little fires amongst material in process of manufacture, and continued estrangement and bickerings between employers and employed), and let him carefully index all fires, both under the name of the proprietor of the premises, and under the designation of the property (such as "Victoria Mills," as an example), if such there be. It is much more pleasant to be at some little trouble in keeping such a book than to find out, after the mill of one of your clients is burned down, that the same man had a fire some years before, under suspicious circumstances, in another mill in a different part of the country. And a regular perusal of local papers from all parts of the country will repay itself in many other ways. A man would not be likely to send up to the office in which he was insured an exaggerated account of the injury and disorganization which his recent fire had brought upon his trade if he thought that office would be likely to see the local paper in which he was advertising "Business as usual—no embarrassment whatever!" nor would he care to persist in his complaints of having been "done" by the assessor, did

he imagine that a keen eye at head office would detect his public announcement, that "Owing to the strikingly advantageous terms he had been able to secure from the Insurance Companies he was now able to advertise a sale of salvage goods at fifty per cent under cost price."

Purchaser's Right to Policy Money.—(Rayner *v.* Preston.—See the *Review*, of 18th May, 1881, and preceding issues.) The plaintiff in this case purchased a house of the defendants, who, as trustees, had insured the property in the Liverpool and London and Globe. The purchase-money had not been actually paid nor the deeds quite completed (although the plaintiff could not withdraw from his bargain) when the house was burned. The insurance company paid the trustees, who were thus put in a position to realize double the value of the house. Plaintiff claimed the insurance money, or else that the trustees should at least be required to use it in re-instating; but the Court decided against him, and he was equally unsuccessful on Appeal, although Lord Justice James dissented from the majority of the Court. The trustees not yet having received the purchase-money, although they were legally entitled to force the plaintiff to complete the bargain and pay, there was a *prima facie* right, perhaps, to the insurance money, having in view the possibility of the plaintiff failing to pay; but a point, not raised at the trial, was this: suppose the plaintiff being, *de jure*, the owner of the house, had himself insured the property in another office while yet the purchase-money was unpaid, how would the loss have been apportioned?

With regard to this case, the *Solicitors' Journal* has the following (which the *Review* further comments upon):—

"We should not like to say that the decision of the majority was wrong, and it seems to us that this case is fraught with much difficulty, which ever way it is decided; but we do feel much regret that the Court could not see its way to give effect to what seems to us the justice of the case. The contract of fire insurance being one of indemnity, it seems monstrous that the vendor who, in the result, turns out not to be interested in the premises at all, should put the money in his pocket as an entirely gratuitous windfall; whereas the unfortunate vendee, who, in the result, is interested in the premises, and only gets a ruin." He then discusses and decides that the insurance office could recover the money back,

and proceeds as follows :—“ If the insurance office cannot recover the money back, who ought to have it? The vendor who has received his full price for the value of the buildings uninjured by fire, or the vendee who has paid the full price? Surely every layman would say the vendee.”

“ No one would, we think, be found to disagree with this conclusion, or with the subsequent observations of the writer, that the case like the present is one of those unfortunate instances in which a substantial injustice has been done by some form being, through haste or carelessness, omitted. A very curious point, however, arises in the course of this discussion. It was, as the writer points out, argued for the defendant, and apparently admitted by Lord Justice James, that if the conveyance had been executed, nothing could be recovered upon the policy against the insurance office. ‘ The policy not being assigned, the vendee could not recover; the vendor could not recover, having no interest in the premises, and not being damnified by any injury to them by fire.’ During the transition period then, no one could recover! Surely the force of the folly of too technical a decision on the subject could no further go! A few words inserted in contracts of this description would, however, probably have had the effect of putting the whole matter absolutely right.”—*Review*, April 5, 1882.

This case was again heard of as the action of “*Castellain v. Preston*,” in the Chancery Division, before Mr. Justice Chitty, on 5th April, 1882. Lord Justices Cotton and Brett, who tried “*Rayner v. Preston*,” had thrown out a suggestion that the insurance company might be entitled to claim a return of the policy-moneys from the vendor, on the ground that the contract was one of indemnity, and that the insurer had suffered no loss. The “*Liverpool and London and Globe*,” therefore, brought an action, in the name of their chairman, Mr. Castellain, to recover the money; but the learned Judge decided that the doctrine of subrogation did not apply in this case, and gave judgment against the insurance company with costs. The company appealed, and even as I am writing this article (March, 1883), I learn that the Appeal has been successful, and that Mr. Justice Chitty's decision has been reversed.

So ends a very interesting case, contested on very important issues.

Public Carriers.—From 1st January, 1883, the Public Carriers will cease to be responsible to their customers for Fire damage to their goods in any warehouse or wharf which is not the property of the carrier to whose care the goods were originally entrusted. A paragraph to this effect appeared in the newspapers at the time, but it was not very lucidly worded.

R.

Raising.—RAISING is an operation employed in the manufacture both of woollen and cotton goods, for the purpose of pulling part of the fibre out of the yarn, generally the weft, which, with that object, is spun specially soft; this raising then produces a fur on the surface of the cloth, which, after having been so brought there, is, by a continuation of the process, laid even, and, so to speak, combed. The nap in broadcloth is produced in this manner, also the face on rugs, blankets, cotton swansdowns, &c.

Woollen cloth is generally raised with teazels, much in the same manner as a century ago, before metallic cards were invented, and most woollen manufacturers maintain that this is the only advantageous manner of performing this operation—the metallic cards being too stiff and unyielding, besides having a different tooth from that of the vegetable card or teazel. There are, however, numerous goods, especially all made of cotton, which are raised with metallic cards. These are passed several times through machines, containing generally revolving rollers on reciprocating flats, covered with card clothing, which has done service in cotton mills, and there lost much of its length by grinding, the shorter tooth being then still considered long enough for raising, and, by many manufacturers, better than new cards.—From the *Textile Manufacturer*.

Range of Policy.—The agent who procures the order, the official who drafts the Contract of Insurance, and the client who wishes to avoid all unnecessary trouble when a loss occurs, are all equally concerned in seeing that all policies, covering more or less the same property, are made identical in wording and range.

If the proposer be not fully covered by the insurances which he has already effected in offices A & B, the agent for office C, who is being offered an additional line, should have tact enough to be able to get a look at his proposer's other policies before committing his company to a form of

wording which, in many respects, may be at variance with that adopted by the other companies on the risk. Or, if the insurances are all going to start together, the office having the largest line should arrange with the others as to a concurrent form of wording. In cases of insurances on fireproof cotton mills, for instance, every one knows that there are separate sums written on the building, gearing, machinery and stock of each separate floor; as a rule, however, such divisions are not obtained in cases where the insurance is that of a main mill building, and its contents, which is *non*-fireproof. But, if it should happen that an agent, more longheaded than his competitors, gets divisions in non-fireproof cases, the consequences may be very disagreeable to an office which, having the same mill insured in one sum only, may have to pay proportionately more than its rival for a loss confined to one of the floors, although the *total* of its "all round" policy may be *less* than the corresponding total of its opponents specific insurances. For example: office A insures *stock* in Mill No. 1., of four storeys in height, in the lump sum of £400, for which say it gets £2 premium. Office B insures *stock* in the same mill, but in the following manner: £200 on stock in first floor, £200 on stock in second floor, and so on, making a total of £800 altogether, for which it gets a premium of £4. Damage to the extent of £100 is done to stock on the *first* floor, and office A has to pay £66. 13s. 4d. of that amount, and office B £33. 6s. 8d.! Whereas, if both policies had been concurrent, that is, had office A had specific sums on each floor like its neighbour, or had office B's policy been written in one sum for £800 all round, the payment would have been, in equitable proportion to the premium received, as follows: office A £33. 6s. 8d., office B £66. 13s. 4d. I would like to point out here an objectionable feature which sometimes is observable in the Nottingham Lace Trade Insurances. I refer to the practice of writing items on "Lace Machines, including material in process thereon," for it almost invariably happens that there is another insurance in some other office

"On stock, raw manufactured or in pro

example in this case also:—Office A covers “Lace Machines, including material in process thereon,” for £400. Office B covers “stock, raw, manufactured or in process,” also to the extent of £400. Both offices receive the same amount of premium, but, as the sequel will shew, they don't stand an equal chance of loss. A small fire occurs: a lace machine is damaged to the extent of £10, and the fabric on the machine at the time is also consumed, and is valued at £10. Office A pays the £10 for the machinery damage, and also $\frac{3}{8}\frac{9}{10}$ ths of the stock loss, which will be about £4. 18s. 9d. in all, £14. 18s. 9d., as against the £5. 1s. 3d. payable by office B. Besides, it is utterly unnecessary to make a “lace machine” item cover fabric on the machine as well, for I have seen policies containing such items actually having another item applying to “stock *in process*,” which is simply covering the same thing twice over.

A loss which occurred some seven years ago at Belfast, afforded some extraordinary examples of non-concurrency in wording; so much so, indeed, that the offices ultimately decided to dispense with any literal interpretation of the wording of each contract, and to treat all the insurances as covering, *pro rata*, all the property destroyed. I hope such an extreme example of ludicrous incongruity of wording has become impossible in these days, for it is preposterous to expect an assessor to do his duty creditably in cases where, as in the instance just referred to, he has to deal with one policy covering “Stock-in-trade of every description, including all moveable utensils”; another policy covering “Stock-in-trade—including plain, but not including sewed muslins”; a third policy insuring “Stock-in-trade—no plain nor sewed muslins,” and a fourth policy introducing a still further complication by confining its range to “Stock of Wholesale Haberdashers”—thereby necessitating the solving of an interesting conundrum, whose point was whether hobnailed boots and silk hats could or could not be classed as “haberdashery.” As regards the phrase “Stock-in-trade,” I consider that it is to be taken as covering all or any articles, comprehended in the nature of the insured's business as stated in the policy, which the

insured may have on his premises *to sell to the public*, such articles being, of course, his own property, unless in cases where the wording of his policy grants him protection upon the goods of others, which he may have in stock "in trust or on commission, and for which he is responsible." In a *Printer's risk*, for instance, type, ink, blocks for bill-heads, or blocks to be used in illustrating any printed matter, and lithographic stones, would come under the head of *Utensils*, and would not legally be covered if the sole item of the policy were "Stock-in-trade." The stock-in-trade of a printer is really only his raw material (*i.e.* unprinted paper) and books, circulars, pamphlets, &c., finished or in process, and materials for binding the same.

Rape.—A refuse mass of raisin stalks and skins (resulting from the manufacture of British wines), which is sold to vinegar makers for filtering purposes.

Rateable Proportion.—It has now been clearly established, on the best legal authority (including that of Mr. Benjamin, Q.C.), that what is known as the "ninth condition," or "contribution clause," is thoroughly sound in law. Agents would do well, therefore, to impress upon their clients the important fact that, if in addition to the insurances which they had previously effected in sound offices, they place an extra amount with a shaky company, they not only run the risk of not getting their money from that shaky company, but they also expose themselves to the danger of having the amounts insured by the sound companies proportionately reduced by their foolish act. Example: Suppose Messrs. A have property to the value of £2,500, which they insure as follows:—

Office B	£ 500
„ C	£ 500
„ D	£ 500
„ E	£ 500=£2,000,

and that a loss of £2,000 in extent occurs—the policies being non-average. Each of the offices named pays £500; but the insured, feeling that, if a *total* loss had occurred, he

himself would have been £500 out of pocket, next year effects an *additional* insurance, by placing £500 with office F, which eventually turns out to be an unsound company. Let us say, that in the course of another year, another loss of £2,000 in extent occurs. What is the result? Simply, that offices B, C, D & E, pay £400 each this time, and that after vainly trying to get the remaining £400 from the bankrupt office F, the unfortunate (or shall we say foolish?) insured finds that he is actually £400 worse off by insuring in five offices, than he was when he insured in four.

From the remarks of Lord Justice Mellish, in the "King and Queen Granary" case (for a verbatim report of which see the Appendix to this volume), it would seem that the phrase in this ninth condition, which runs, "covering the same property," would be clearer did it read "covering the same interest in the same property."

Rent.—Many professional men allege that rent insurance is but the insertion of the proverbial "thin end of the wedge" in the direction of establishing, by a gradually widening process, countless ramifications of insurances upon profits. I do not know how this may be, but I think I shall be safe in saying that rent insurance, as originally conceived, never was intended to be an insurance upon *profit* in the strict sense of the word. The leaseholder who sees his tenement destroyed, is but poorly consoled by the knowledge that the insurance money is being employed in reinstating the premises; if he has no rent insurance to cover the sum, he will have to pay his landlord during the time which he will have to remain in enforced idleness, unable to earn, by means of his hired property, the money which he will nevertheless be bound to continue uninterruptedly to pay for the lease of it. To cover him against such a contingency is not to insure his *profit*, it is simply to guarantee the recouping of his out-of-pocket expenses. And, again, the landlord who has expended great sums in improving the property which he leases to a tenant on terms which preclude the possibility of one year's returning the outlay on such improvements, may

fairly argue that the mere reinstatement of the building, in twelvemonth's time, will not make up for the loss of the monthly, or quarterly or half-yearly sums which, had the building not been destroyed, he would have been receiving from his tenant, as part repayment of the sums he had paid out of pocket for improving the premises. He doubtless, of course, has power to compel this tenant, on a long lease, to pay the rent during the whole time occupied in rebuilding; but the tenant may abscond, and the landlord's solvency (especially in the case of cottage property, a whole block of which has been destroyed by fire, and no remedy existing against the tenants at will, such as there would be in leasehold cases), may depend upon his receiving the rents uninterruptedly: for you may pay him for the whole building loss within a month after the fire, yet, if the assessor has worked correctly, the money so paid will not, after he has paid the regular instalments to the contractor, leave him much of a margin, considered as a set-off against loss of rent. Where, also, a landlord occupies his own premises (as a Manchester warehouse, for instance), and is obliged, through their destruction by fire, to *hire* another warehouse for 12 months, it could not be said that he was insuring his profit when he insured against that contingency. Only, let there be no mistake on this point. If the landlord has omitted to specifically insure his rent by a separate item, he has no right to have any expense to which he may be put in hiring a temporary warehouse, included in the settlement of his purely building insurance.

A *First Chief Rent* of a freehold is constituted as follows:—The absolute owner of a plot of land, being desirous of selling his property, but not requiring cash for it, disposes of it at a price of so much a yard, payable as *perpetual* yearly chief rent, as security for the payment which he requires the purchaser to covenant to erect and keep in good order and repair, buildings upon that land, the yearly rental, collectively, of *so much* yearly first chief rent payable to him. The owner of the said chief rent can collect the tenants' rents, and if any of the tenants on the land is in arrears to him, he may have a

doubt he could, under the 14 Geo. III. cap. 78, compel the insurance company covering the buildings, in the name of the erector of them, to reinstate the premises in the event of a fire. The erector of the building property may mortgage his buildings; but the mortgagee will have to take the burden of the chief rent with the property.

Responsibility.—(In connection with the phrase, “for which he is responsible”), *see*—

Dyer's responsibility.

Calico Printer's responsibility.

Yarn Agent's responsibility.

Retting.—In the flax industry, this is the name given to the process which has for its object the separation of the fibrous tissue from the outer membrane and woody tissue, and likewise to break up the fibrous bundles into fine fibre. The process is frequently performed by steaming, and sometimes with cold, sometimes with warm water.

Riflings.—The name given to the waste or refuse left over from the sorting of bristles.

Rigging and Rigging Machines.—In the Textile industries, this term is used to denote the operation of folding a piece up its centre, so as to reduce it to half its width—for the greater convenience in packing. In connection with this matter, it may be of interest to note that there is a species of “false” rig in vogue, by which a customer can be deceived into believing that a piece is wider than it actually is. In a notice of a newly patented “rigging machine,” attention has even been drawn to the fact that the machine can be “advantageously (!) used in producing a ‘false rig,’ *whenever such is required.*” Valuers, loss assessors, &c., would do well to note this.

Roller Boards.—

Rolling Boards.—

} *See* “Piece Boards.”

S.

Sebastine: a new Explosive.—A consular report from Sweden, issued by the Foreign Office, gives a description of a new explosive called sebastine, which, it

is said, has competed most favourably with dynamite. Sebastine appears to be an explosive based upon nitro-glycerine, but safer to handle than the ordinary dynamite, while more powerful in effect and cheaper to purchase. The greater safety of sebastine depends on two circumstances—first, that the explosive oil is more completely absorbed and bound by a specially prepared kind of charcoal and other ingredients; and secondly, that in ordinary cases it requires no percussion cap to explode. As to use in mining, it is reported that the new sebastine is exploded simply by the fuse, providing the bore-hole is properly secured by a stronger wadding as in an ordinary charge of blasting-powder. According to official statements, there has not been one single instance of accident happening when using the new sebastine. The Swedish Government having ordered trials of sebastine against dynamite, it is said to have been proved that sebastine was far superior in effect, and about equal in force to English gun-cotton when used in torpedoes. The Consul at Gothenburg adds:—“As an explosive of great power, and offering superior security, particularly for mining and similar purposes, I would recommend the new sebastine, or, more properly, its improved form, *virite*, to the notice of Her Majesty's Government.”

Secretage.—The process of preparing the hairs of rabbits and hares for the hatmaker. It is done by the application to the hair, while still on the skins, of a solution of nitrate of mercury.

Semolina.—In the milling trade this term is used to indicate the grain in its state when, after being cleaned, screened and separated, it has been cracked or broken up into small portions, and is then ready to be passed through the bolting cylinders or reels, for the purpose of sifting out and removing the dead flour and bran produced by the breaking-up process.

Seron or Seroon.—The name for bales or packages of various kinds of goods. Thus, one may talk of a

“seroon” of hides, a “seroon” of indigo or other drugs. A pannier of raisins, weighing 87 lbs. odd, is also called a seroon.

Silk Thread: Adulteration in.—A dressmaker admitted into the Leeds dispensary, was found to have a distinct blue line on her gums, with simultaneous symptoms, such as a furred tongue, inflammation of the lips, and general debility—all signs pointing to the probability of poisoning by lead. The doctor in attendance on her, for some time failed to discover the source, and was beginning to think the blue line had been caused in some other way, when he accidentally learned from a merchant that silken thread, being sold by weight and not by length, is sometimes adulterated with sugar of lead. He then questioned the patient, and she informed him that it had been a common practice with her, when at work, to hold silk, as well as other kinds of thread in her mouth, and that she had done this the more readily with silk, inasmuch as it often had a sweet taste. This characteristic is a sure indication of the presence of lead, and all thread possessing it should either be rejected or used with caution. It will be found that the silk thread of the best makers is tasteless, whereas some inferior threads are sweet.

Skips.—In cotton spinning-mills, skips are the baskets in which the yarn is placed. They are sometimes made of Buffalo skins.

Slam.—The refuse from alum works.

Sliver.—A long continuous lap, riband or twist of cotton, wool or flax.

Steam as a Fire Extinguishing Agent.—An ordinary steam or manual engine, at 100 lbs. to square inch pressure, and one inch diameter jet, will throw out 360 gallons of water per minute (over 90 tons or 20,000 gallons per hour); 90 per cent. of this mass of water falls to the ground, the remaining 10 per cent. is turned into steam, generating a draught which causes the atmosphere to rush under the burning material, and thus supply the

fire with oxygen. This is caused by firemen, as a rule, playing *on the top* instead of into the lower part of the fire; in the latter case the steam generated would ascend, and displace the fire-sustaining nature of the atmosphere, and assist to put out the flame—once get the “flame” out, and kept out, the fire cannot spread, and is soon mastered.

Plain water is instantly turned into steam at 700 to 1000 degrees of heat.

It would be a difficult thing to persuade a fireman that one gallon of water, turned into steam, expands, and would displace 72,000 times its own size of fire-sustaining atmosphere, and so become a substitute for chemicals. The prevailing idea has hitherto been to make an engine throw as much water as possible—“a great mistake”—which is amply proved by unsuccessful attempts to get large fires under; 18 out of 20 reports of fire ending that the place was gutted, the only satisfaction being that all that was possible had been done to save life and property.

Steam: Igniting Power of.—One of the things not generally known, is that steam will, by direct impact, ignite dry wood or other inflammable substances. The *Scientific American* mentions a case in which a portion of dry pine was lighted by steam from a boiler twelve feet distant.

Steam-Pipe Covering.—In the special report of the Boston Manufacturers' Mutual Fire Insurance Company is given the following receipt for a cheap and simple non-conducting covering for steam-pipes:—Four parts coal ashes, sifted through a riddle of four meshes to the inch, one part calcined plaster, one part flour, and one part fire-clay. Mix the ashes and fire-clay together to the thickness of thin mortar, in a mortar trough; mix the calcined plaster and flour together dry, and add to it the ashes and clay as you want to use it; put it on the pipes in two coats, according to the size of the pipes. For a 6 in. pipe, put the first coat about $1\frac{1}{4}$ in. thick; the second coat should be about $\frac{1}{2}$ in. thick. Afterwards, finish with hard finish, same

as applied to plastering in a room. It takes the above about two hours and a half to set on a hot pipe.

Steel Wire: Hardening and Tempering of.—

A fire at Cleckheaton in a wire manufacturing establishment (date of fire, 23rd May, 1882), was said to have been caused by an explosion of inflammable chemicals in the attic used in the process of hardening and tempering patent steel wire. Wire tempering, evidently by another process, I find thus described in a surveyor's report:—"The wire passing through animal oil baths, fixed on the frame, and being heated by gas both before and after passing through the oil."

Another process is thus described:—"The wire passes through two earthenware retorts, cased with iron, and supported on iron stanchions $2\frac{1}{2}$ feet from stone floor. The retort is heated by the fire from a thirty gallon cask of distilled petroleum (120° test) conveyed through a small pipe, with small cross nozzle into the retort, and the heat is kept up by small steam-pipes with corresponding nozzles, which force the liquid into the retorts. After leaving this, the wire passes through a zinc trough containing cod oil (cold)—the said oil being passed into the trough by means of a pump and pipes, from an iron cistern fixed over the trough near the roof."

Stopping Machinery by Electricity.—(For description of an automatic system, *see* "ELECTRIC STOP MOTIONS.") An ingenious method of instantly stopping machinery, when in motion, is said to be in operation at the Dominion Bolt Works, Toronto, Canada. A wire-rope coiled around the stem of the throttle valve of the engine, carries a weight which is held in place by a rest, and the whole arrangement is so placed that the passing of an electric current along a wire releases this rest and causes the weight to fall. The tension thus thrown upon the wire-rope acts upon the throttle valve, cuts off the supply of steam, and consequently stops the machinery. Buttons with wire connections are placed in different parts of the works, and on pressing any one of these, the passage of an

electric current acts as above mentioned. In any factory these buttons can be placed in every room, or several of them in a large room, as may be required. Should anyone happen to get caught by the machinery, the simple pressing of a button in the most distant part of the factory will stop the whole as quickly as could be done were the engineer standing ready to instantly obey a given signal.

Surveying and Plan-Drawing.—In order to convey to his office an exact idea of the risk, it is not alone sufficient that the surveyor should draw a correct plan and write a descriptive report of the particular premises proposed for insurance. The streets, or yards, or lanes, or wharves bounding the premises on every side, should be shown by name on the plan, and according to scale in width, and the numbers, names of occupants, and classes of risk of adjoining premises, with the height of the several neighbouring buildings, should certainly also be stated. Especially if the case be that of a manufacturing risk, in a small town, or in an out-lying district, the surveyor should ascertain every possible particular about the water supply—the source, the degree of pressure, the regularity or otherwise of the service, whether or not there are public mains in the outlying district in which the risk is situate, and in what way (whether through the medium of a private meter or through hydrants supplied by the municipal authorities at a fixed charge) the public water is taken into the premises of the proposer. If the premises have at any time during previous years been used for other hazardous purposes (cases where sugar risks have been turned into tanneries, corn-mills into cotton-mills, and wholesale oil stores into less hazardous occupancies, are on record), such things should always be mentioned in the report.

The following directions, for beginners in plan-drawing, were issued some years ago, but, as I do not find that they are at all known, they may perhaps be usefully reproduced here :—

How to select the first measurement to be taken.—In commencing to take a plan, the first thing is to measure the longest straight line of wall or building,

or when there happens to be no sufficiently long length of wall or building, an *imaginary* base line should be taken such as will enable you to measure with the greatest facility into the various points and angles of a long line of buildings. Once having determined on this longest base line (and in the case of its being an imaginary one, it will be better to assist the eye by pushing into the ground a few small pieces of stick at various distances along said straight line), it is an easy matter to erect offsets from it to the various points and angles of the buildings. The foregoing is perhaps the *best general* rule that can be given with regard to the selection of the first measurement to be taken, but the power of determining upon the best base line in every instance with certainty and promptitude comes only after practice, and cannot well be imparted by theory, the reasons which guide us in the selection of the same being too numerous and varied to be here specified in detail. Experience will, however, soon cause the best base line to occur intuitively to the agent, and the mistakes which may at first happen to be committed, through choice of a wrong line, will only have the effect of illustrating, and no doubt each in a different light, the proper motives which should point to a selection.

How to Measure.—Measurements are in the case of beginners best taken with the measuring tape, though with a little practice they may be taken more expeditiously, and with sufficient exactness by pacing the distance, each regulated pace of the surveyor to be 1 yard or 3 feet. A very little practice in stepping, say 20 to 50 yards, and then checking the measurement with the tape, will enable the agent to drop naturally into the stride of 1 yard.

How to lay your measurements down on Paper.—Having first determined (according to the size of the works) on what scale you are going to draw your plan (whether 20, 30, 40, 50, 60 or 80 feet to the inch), measure your base line, and mark same in the shape of a line of proportionate length on your sheet of paper. That is to say, if you have paper with you drawn to the scale of, say 20 feet, and your base line is 36 feet long, traverse on said scale paper 36 of the small subdivisions into which you will find the inches divided. Should you adopt the scale of 40 feet to the inch, each small subdivision will represent, of course, 2 feet, and 18 only must be traversed; while in the case of 60 feet to the inch, each subdivision represents, of course, 3 feet, and 12 only would have to be marked off. If you have plain paper and a scale measure with you, you will, of course, be able to draw the measurements on your paper in accordance with the subdivision of the inch marked on the said scale measure. If you have plain paper only with you and no scale measure, you will have to draw a line, proportionate in your idea to the measurement taken, and mark under it and each succeeding line the length of same in yards. The last method, however, in the case of beginners, is not to be advised. You will determine how far to the right or left hand of your page your base line is to be set down by the extent to which the buildings preponderate on either side. Proportionately to the extent of the premises you will adopt a large or small scale, say, for extensive premises 60 or 80 feet to the inch; while for medium and small premises, 40, 30, or even 20 feet to the inch, will suffice.

T.

Tallow Cups.—In cotton mill machinery, some of the bearings are automatically lubricated by means of receptacles for tallow fixed upon them. Many fires have arisen through carelessness in allowing these tallow receptacles or cups to run empty.

Tenant's Interest in Paperhangings and Painting.—(See "Dwelling House Insurance.")

Tenant by Elegit.—If a debtor absconds and leaves no goods behind him upon which distress can be levied, the creditor can move the Court to institute him as "tenant by elegit" into possession of any leasehold property which might be found to have been held by the debtor. The creditor would collect the rents from any sub-tenants then occupying the premises, until such time as the amount so collected would satisfy his debt, when the property would revert to the debtor. It is needless to remark, that such a "tenant by elegit" would have a *bond fide* insurable interest in the property; and I am not sure but that he would not have an equally *bond fide* interest in insuring such property *in prospective*: i.e. even *before* his debtor actually absconded: if he had good reason to suppose that his only hope of getting his money lay in ultimately obtaining the consent of the Court to his becoming such a tenant.

Tewing Beetle.—A utensil for beating hemp.

Theatres.—The following questions might at all times be advantageously addressed to an agent who sends forward a proposal on theatrical risks:—

QUERIES.

1. Please send a ground plan shewing position of the various Rooms.
2. What is the position of the Carpenter's Shop in the Building?
3. How is the Sunlight arranged. What distance does it come down from the ceiling, and how is the shaft for carrying off the heated fumes protected in the roof?
4. Where is the Wardrobe?
5. What is the mode of heating adopted? If hot-water, state whether high or low pressure.

6. How are the batten and float lights protected in case any of the Scenes were to fall whilst being shifted?
7. Is there any Scene Painting done, and if so, where?
8. How long has the Theatre been built, and was it ever on Fire?

Tipple—Tippler.—The “tippler” is the boy who attends to flax-dressing machines. The “tipple” is a square-looking bundle of flax, tied up like a pillow, which the “tippler” removes at intervals from the “stool.” It is, as near as possible, 10 lbs. in weight.

Tod.—A wool-dealer's measure of weight, equal 28 lbs.

Truss.—In agricultural produce a truss of hay represents 56 lbs. of old, and 60 lbs. of new; a truss of straw being 36 lbs.

Turpentole.—A spirit distilled from paraffin.

V.

Valonia.—A preparation of acorns, used in tanning and dyeing.

Valuations and Valued Policies.—An attempt has undoubtedly been made lately by certain traders to get up a crusade in favour of the issue of “value” policies. They want to throw the onus of proof upon the companies. They argue that offices have no right to receive premium upon £1,000, and afterwards to contend that the property is not worth £500. An agent can best meet such wild theories by calmly and clearly pointing out that the precise valuation of the building, stock and machinery of a large mill would occupy many days in execution, and cost a good round sum in fees for the professional skill employed. No insurance company in the world could afford to employ professional skill, in every case, out of current rates, for rates within considerable distance of them. Put it to the insured whether he would like to pay such charges—great to a fabulous amount—on the issue of his premium. The ordinary insurance policy is sufficient for the purpose, and to secure a knowledge of the purely fire risk elements

of the case, but not to yield any accurate information regarding the first cost and current value of everything in the place. When a loss occurs the companies have to pay considerable fees to valuers in order to get an idea of the damage done, but then a loss usually represents one case out of two or three dozen proposals. I am not saying anything here as to the wide door which "value" policies might open to fraud—in some quarters that might be a point in their favour; but it is enough to point out to restive policyholders, struck with what they consider to be the "happy thought" of securing a "value" policy, that they would, supposing all other obstacles surmounted, have to pay for the luxury to a pretty smart tune.

Vendor and Purchaser.—See "Purchaser's right to Policy-money."

Verbal Agreements or Understandings.—(See "Contract of Insurance.")

Virite.—Another name for **Sebastine**, which see.

Vulcanizing Room.—India Rubber works. Bisulphide of carbon (a highly inflammable and explosive acid), is used in the vulcanizing process. The cloth passes over rollers and is dipped into a shallow trough containing a mixture of bi-sulphide of carbon and ammonia. It then passes over a steam chest.

W.

Warehousemen's Liability.—*Lilley v. Doubleday.*—(See *Law Times*, 9th July, 1881.) The plaintiff brought an action against the defendant to recover £300 damage for the loss of certain goods which the defendant had agreed to warehouse in a particular place, the plaintiff not having assented to their subsequent removal from that place. Held that the plaintiff was entitled to judgment, the goods having been destroyed by fire in the place to which they had been removed without the plaintiff's knowledge. If the owner of the property gives another

authority to deal with it in a certain way, and such person chooses to deal with it in another way, the latter must take the risk of the consequences, UNLESS SUCH LOSS OR INJURY WOULD HAVE OCCURRED IN WHICHEVER WAY THE PROPERTY HAD BEEN DEALT WITH. Fire originating, for instance, through the spontaneous heating of the material itself, would not cause any special liability to attach to anyone in the same position as the defendant in above case, even although he had been guilty of a breach of contract in removing the goods.

Warp and Weft.—Briefly stated, the warp is the cotton which runs the length of the cloth; whilst the weft is the thread woven across the breadth of the cloth. The warp requires cotton of a stronger staple than that used for the weft. There are exactly 2,448 threads used in the warp for the manufacture of a piece of cloth. Any number, either larger or smaller, can be used in the production of special articles; but this is the standard for high-class cloths of the regulation width of 40 inches.

Water supplied by a Municipality, or Private Company having a Monopoly.—All water taken from the mains, and used in extinguishing a fire, must be free of charge. I cannot see what difference it makes whether the water be in the mains, or in a private pond or reservoir which it has reached, through a meter, from the mains. In such an instance as the latter, however, the water companies in various localities, or the corporations owning the water supply, have charged the insured for the fresh supply of water which it was necessary to send through the meter to replace that taken from the pond at time of the fire; and the insured, therefore, looks to the insurance office to pay for the water first used. If a corporation or a company do not charge for water taken out of the mains to be used at a fire (such water in the mains yielding no profit to them, strictly speaking, until it has passed into other channels), I fail to see why water, out of which they *have* made a profit already, should be treated differently.

The case of *Atkinson v. Newcastle and Gateshead Waterworks Company* (*see Bunyon*, page 237) establishes the fact that municipal authorities who have incorporated, by reference, in their special or local Act, the "Waterworks Clauses Consolidation Act, 1847," are responsible for the burning down of property within the area of their jurisdiction, if there be any defect in the water supply at the time of the fire. The difficulty is to discover which towns have incorporated this Act in their own, and which have not. Comparatively few towns have incorporated the Act, I suspect, and the relative positions of insurance companies on the one hand, and local authorities on the other, may be best illustrated by the following extract from the evidence given by the Manager of the "North British and Mercantile," before the Select Committee on Fire Protection, which sat in 1867. It plainly indicates the manner in which insurance companies are handicapped in fighting Bumbledom and all its works:—

1733. CHAIRMAN—Have you anything further to add?—A question was asked of Mr. Fletcher with reference to the *locus standi* of fire insurance companies in the case of Water Bills. You are, I have no doubt, aware that insurance companies have, until last year, been allowed to appear and oppose water companies' Bills, where those Bills had not the public clauses in them for the purpose of having a sufficient pressure of water; but, about a year ago, there was a decision of the referees refusing them a *locus standi*, acting upon the very strict technical nature of the principle. I cannot say anything against it, because, I dare say, it was right; but, at the same time, there is no doubt that it would be a great advantage if insurance companies were permitted to have a *locus standi* in reference to water companies' Bills; because nobody will come forward to oppose such Bills except parties such as we are, who are directly interested in seeing that these provisions are carried out. When a Water Bill comes before the Chairman of Committees, and there is no opposition, the promoters of the Bill say: "We wish to have those public clauses excluded from our Act." We all know that the opinion of the solicitor, or of the engineer, saying that there is a great difficulty in making those clauses apply, is quite sufficient to warrant the Chairman of Committees in excluding them. But it might be a very different thing if those parties were put upon cross-examination, and if the opponent saw whether there was good reason why those clauses should be excluded; and I do not know anybody who would have the same interest in seeing a water companies' Bill properly framed, and the clauses properly adjusted, as the fire insurance offices; and I think that it would be desirable to allow us to appear—which permission we had for a good many years until last year.

1734. Mr. KINNAIRD—Do you believe that, if the power was given, the various companies would exercise it?—There is no doubt of it; because we

try all that we can; so much so, that we have a solicitor expressly for the purpose of examining these water companies' Bills, and bringing under our notice anything which may appear to be at variance with the public Act.

1735. Mr. LUSK—A water company is a joint-stock company?—Yes.

1736. A fire insurance company is a joint-stock company?—That is quite true.

1737. Have you any right to interfere with their affairs any more than they have a right to interfere with your affairs?—The only excuse for it is this, that there is a public Act regulating the provisions which should be insisted on in all water companies' Bills. A particular company asks the Legislature to exclude from their Bill the clauses which the Legislature says should be inserted in all Water Bills. Now we have a direct interest in seeing that those clauses are inserted.

1738. Need you take any risk unless you like?—No.

1739. CHAIRMAN—Would any person in a town be allowed to do it?—No. He has no *locus standi*; only corporations have a *locus standi* now.

Waterproofing.—The “Clamond” Patent Process (a new invention) consists in passing the fabric through a bath of dissolved paraffin, and afterwards placing it in a stove heated by coils of steam pipes. The object of this heating process is to evaporate the naphtha, &c., which remains in the fabric as a consequence of its immersion in the paraffin, and these evaporations are conveyed into an adjoining chamber, containing cold water coils which act as condensers in such a manner that the vapours can be gathered up in a receiver and kept for use again. The “Clamond” Process may have its merits, but they would scarcely appear to be such as would commend it to the approval of Insurance Men.

Wey.—Amongst wool dealers, a “Wey” equals 182 lbs. In the salt trade it represents 40 bushels of 56 lbs. each, whilst amongst farmers it stands for 48 bushels of oats.

Willyhouse.—In the woollen trade districts, the “Willyhouse” is the name given to the department in which the matted wool is opened and freed from dust by means of a revolving cylinder. In the old “purity” days naked gas lights in a Yorkshire willyhouse was the universal rule. To-day, however, is the day of “blends,” mixtures of cotton and wool, shoddy and all sorts, and, as a consequence, “flyings” and fine cotton dust make the

proximity of an open light dangerous. To do the Yorkshire firms justice, they are most willing, as a rule, to adopt enclosed lights when pointedly asked to do so by the insurance surveyor; but the mere act of enclosing the light is not sufficient. Men will dust an open bracket every morning, but they are apt to think that flyings may safely be left to repose for any length of time on and around an *enclosed* light. This is a delusion and a snare; many fires occur at lighting-up time in the early morning, from no other cause than that of "flyings" from the top of the lantern suddenly being wafted into the enclosed space immediately the lantern has been opened for the purpose of lighting up.

Windmills.—The cause of a recent fire in this class of risk is worth noting. The brake was put on to stop the mill on the evening preceding the fire. During the night a high wind arose and started the machinery in spite of the brake. The friction created by the head wheel going round with the brake on, caused the fire.

Winter-season Fires in Manufacturing Risks.—One of the greatest difficulties which cotton manufacturers and worsted workers have had to contend with, has been the constant generation, particularly in the winter season, of static electricity developed by their swift-running machinery. This trouble exists in cotton mills to the greatest extent, perhaps, in the cardroom, but in any place where cotton is worked in a loose state. The fibres of the cotton become electrified, assume positions which interfere with proper manipulation of the product, or fly about the room and attach themselves to the machinery, the belting being the great generator of electricity. Mr. Francis W. Whiting, of Boston, has devised an apparatus for ridding the machinery of this electricity, and conveying the force away to a place where it can do no harm. His plan is to collect this troublesome force at the points where it is developed and to discharge it into the ground. The principle used is that of the Leyden jar. The collector may be described as a small piece of brass pipe, projecting

from the surface of which, every inch, are bolts, which stand about one inch from the face of the belt. This collector is fastened to an arm depending from the ceiling above, and from the arm runs a copper wire to the nearest gas or water pipe, thereby giving a free connection direct with the earth. As the earth is a great sponge for the consumption or absorption of the electric fluid, the electricity seeks this home rather than to be thrown off into the air in the room. Mr. Whiting, by the way, does not propose to patent his invention, but gives it to the public.

In printing presses, also, where the roll paper is used, passing rapidly over the rollers in a semi-dry condition, unless the press is on a foundation in direct communication with the earth, so that the electricity can escape, there is so much electricity collected in the paper in a short time that it flies off the rollers and becomes entangled in the press; and in the case of flour-mills, in addition to many other troubles, there is the danger of setting fire to the floating mass of finely-powdered flour, which, acting as a kind of conductor, draws the electricity from the belting and causes an explosion. The electricity, being generated by friction, is static electricity, which is of great potentiality, and therefore dangerous to the life of an employée if the machinery is accidentally touched when highly charged. When Mr. Whiting first began his experiments at the Armory Mill, at Manchester, N.H., he found that the principal belt, which made 400 revolutions per minute, generated so much electricity, that when the oiler attempted to oil the machinery, he was almost paralysed. Strange as it may appear, it only required the application of a simple principle of electricity to remedy the entire evil.

Wire Cloth and Wire Lath.—See "FIRE-PROOF CONSTRUCTION."

Wooden Columns in Mills.—A series of experiments was lately made by Prof. Lanza, of Boston, for the Manufacturers' Mutual Fire Insurance Co., of that city, relative to the strength of wooden columns in mills. The conclusions at which he arrived are embodied in a

paper read by him at a recent meeting of the Massachusetts Institute of Technology. The immediate purpose of the investigation, of course, was to establish the necessity of such methods of building as are essential to safe insurance, and in the absence of which no prudent company will accept that class of risks, save at rates which will be regarded as excessive. But in its general instructiveness, as well as its bearing on the matter of insurance, the paper of Prof. Lanza merits attentive perusal. It is published in full by the *Boston Journal of Commerce*, and the substance of the principles embodied in it is comprised in the following paragraphs:—

“1. I should recommend that the longitudinal holes in wooden mill-columns be bored from one end only, and that all posts be rejected in which the eccentricity at the other end is greater than a given small amount as three-quarters of an inch. This recommendation is made in view of the fact that holes bored from the two ends are very liable not to meet in the middle, and hence not to allow a circulation of air; that if the hole becomes very eccentric the column is liable to be weakened, and also by the presence of two holes at the same section.

“2. I should recommend that mill-columns be not tapered, as the tapering is a source of weakness, the loss of strength in one of the cases tested amounting to about 120,000 pounds.

“3. I should also recommend that square columns be used in mills instead of round ones, for the reason that the timber comes to the wharf in the form of square logs, and when the columns are made round they are cut from the square form, and this cutting away of the wood is a source of weakness.

“4. The strength of a column of hard pine or oak, with flat ends, the load being uniformly distributed over the ends, and of the diameters tested, is practically independent of the length up to a length of twelve feet (how much further can only be decided by further experiment), such columns giving way practically by direct crushing, the deflection, if any, being, as a rule, very small, and exerting no appreciable influence on the breaking strength.

“5. The only exceptions to the above are found in cases where there is good reason for departure from the rule; as in the case of very imperfect wood or of very eccentric holes, but even there the influence of the deflection in reducing the strength is not nearly so great as has been generally supposed.

“6. No formulæ, founded on the generally received hypothesis that the deflection exerts a very considerable influence on the breaking strength of such columns as those referred to represent correctly their breaking strength for all lengths and diameters.

“7. For such columns as those referred to, the most correct rule for determining the breaking strength is to multiply the number of square inches in the section (the smaller section being used in the case of tapering columns) by the crushing strength per square inch of the wood.

“8. The crushing strength per square inch varies very considerably in specimens of different degrees of seasoning, also in large and small specimens.

"9. The average crushing strength of wood is much less than has been supposed by many. That of some very highly-seasoned hard pine was found at the arsenal to be 7,386 pounds. For some hard pine of very slow growth and very highly seasoned an average crushing strength was found of 9,339 pounds. For some very wet and green they found a crushing strength of 3,015 pounds. For some yellow pine which had been seasoning about three months I found 5,400 pounds. For average crushing strength of such posts as I tested, not thoroughly seasoned, and not very green, I found about 4,400 pounds, whereas in none of these cases did I obtain a greater result than about 4,700 pounds. Hence it would be entirely unfair to assume a crushing strength of 8,000 pounds for yellow pine. For two specimens of white oak tried at the arsenal and very thoroughly seasoned, an average was obtained of about 7,150 pounds, whereas for such oak as was furnished me, which was very green and very knotty, I obtained an average of about 3,200 pounds.

"10. I would recommend the use of iron caps instead of wooden bolsters, as wood is very weak to resist crushing across the grain; and the wooden bolster will fail at a pressure far below that which the column is capable of resisting, and the unevenness of the pressure brought about by the bolster is so great as to sometimes crack the column at a pressure far below what it would otherwise sustain."—*The Miller.*

Wording of Policy.—See "RANGE."

Written Contract.—See "CONTRACT OF INSURANCE."

Y.

Yarns in the White.—See "DYER'S RESPONSIBILITY."

Yarn Agent's Responsibility.—The generally recognized custom is that the agent holds himself liable for all goods entrusted to him, and therefore insures them, charging the spinner or consigner with the whole or a proportion of the premium, as the case may be. Special agreements may be made in special cases, but the foregoing is the general rule.

Yellowing.—In the Birmingham trade, the process of cleansing pins by boiling them in sour beer or a solution of tartar.

Yolk: A Potash Soap.—The secretion of Wool-bearing animals.

Yufts.—Russian leather of a red colour.

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THE
FIRE UNDERWRITER'S COMPANION.

APPENDIX.

COPY OF JUDGMENT in *re* KING AND QUEEN
GRANARIES Case, 11th April, 1877. Tried before
Lord Justices JAMES, MELLISH and BAGGALLAY,

Between

The North British & Mercantile Insurance Company—
Plaintiffs,

And

The Liverpool, London & Globe Insurance Company,
The Northern Insurance Company, The Royal
Exchange Insurance Company, The Sun Insurance
Company, The Imperial Insurance Company, The
Guardian Insurance Company, The London and
Southwark Insurance Company, and the Royal
Insurance Company—*Defendants.*

LORD JUSTICE JAMES—I am of opinion that the Order of the Master of the Rolls ought to be confirmed; and I agree also in what appears to have been the view of the Master of the Rolls, that it was almost a work of supererogation to consider what the true effect and meaning of the 9th clause is: that the whole matter was, for this purpose, to be determined independently of that clause. The case is this: Barnett being liable to make good any loss by fire of the goods of Rodoconachi, Barnett insured the goods in one office, and Rodoconachi, for his own protection, insured the goods in another office. There was no communication between the two offices, or between the two persons insuring. Under these circumstances it seems to me utterly impossible to say that there could have been any contribution. Contribution exists where the thing is done by the same person against the

same loss, and to prevent a man, first of all, from recovering more than the whole loss; or if he recovers the whole loss from one, which he could have recovered from the other, then to make the parties contribute rateably; but that is where there is the same person insuring the same interest with more than one office. But in this case, to use the language in that case, I think, against the hundred, Rodoconachi, the assured, and his office were one, and Barnett and his office were also one; and the rights are to be determined as between that one composed of Rodoconachi and his office on the one side, and Barnett and his office on the other side. That is the relation between the parties. Then as to Barnett—according to the evidence, and it was contended before us that it was not so, Barnett was absolutely liable to make good to Rodoconachi the value of the goods. Barnett, therefore, could not say to Rodoconachi, "Somebody else has been insuring them, you go and sue that somebody else." It was not a contract of indemnity to indemnify Barnett against the claim of Rodoconachi, but it was a further contract which Rodoconachi got for his own security. If Rodoconachi had, upon the invitation of Barnett, gone against the office in the first instance, as very likely he would have done if it is true that Barnett was under an absolute liability to Rodoconachi to make good the entire loss, what was there to prevent the office from availing themselves of the right to sue Barnett in Rodoconachi's name? Because if the action had been brought by the insurance company who had paid the whole loss to Rodoconachi they would have used Rodoconachi's name in an action against Barnett to recoup them their loss. To such an action I am at a loss to see how, between Rodoconachi and Barnett, the language of Rodoconachi's policy of insurance, or the language of Barnett's policy of insurance, could have the slightest effect whatever. Rodoconachi's case would be, "You ought to have given me the goods you had or you ought to pay me the value of them." Barnett says, "Oh! you ought to have gone against somebody else." "What is that to you. You owe me the goods, you are primarily liable." That being so it seems to me the result follows, as the Master of the Rolls has said, that Barnett being liable to make good to Rodoconachi, and if the insurance office pays Rodoconachi, being liable through Rodoconachi's contract to make good to the insurance office, it is utterly impossible to say that the language of the contract between Barnett and his insurance office can deprive the insurance office of the right which they had acquired, that is Rodoconachi's insurance office, or make them liable to contribute anything which they were not as between themselves and Rodoconachi and Barnett liable for before. That settles the rights between them. Then, as the Master of the Rolls says, it may be that from the peculiar language of the contract with Barnett, Barnett has somehow or other put himself in this position, that he would be prejudiced by the mere fact that, Rodoconachi without his privity, had been minded to effect another insurance upon it. If so, that is a damage which Barnett has incurred himself. That cannot enable him to throw that damage on the other insurance office who had nothing to do with him. That is not a mere question of contribution, it is a matter of depriving them of a legal right.

Upon the whole, I am of opinion that the meaning of the contract is what the Master of the Rolls says it is—if it is necessary to express an opinion on it—that the 9th clause must mean this: that there is to be a limit to the liability of the respective offices in those cases when the respective offices are equally liable to contribute to the same loss in respect of the same fire. If there was not that equal liability—if there was not a thing to which they were entitled to

contribute, and, in my opinion, there was not—then the 9th clause does not apply. I do not think it necessary to go any further into the case except to express my agreement with the Master of the Roll's view.

LORD JUSTICE MELLISH—I am of the same opinion. There are two questions to be considered. The first is, whether, independently of the 9th clause, Rodoconachi's insurers were entitled merely to a contribution as against Barnett and Barnett's insurers, or whether they were entitled to be subrogated into Rodoconachi's rights, so as to be fully indemnified by Barnett. Now, there do not appear to be many cases,—and I do not know of any English cases,—on the subject of contribution as applied to fire policies; but I can see no reason why the principle, in respect of contribution, shall not be exactly the same in respect of fire policies as it is in respect of marine policies; and, I think, if the same person, in respect of the same right, insure in two offices, there is no reason why they should not contribute, in equal proportions, in respect of a fire policy, as they would in case of a marine policy. The rule is perfectly established, in the case of a marine policy, that contribution only applies where it is an insurance by the same person having the same rights, and does not apply where different persons insure in respect of different rights. The reason of that is obvious enough. Where different persons insure the same property in respect of their different rights, they must be divided into two classes. It may be that the interests of the two between them make up the whole property, as in the case of a tenant for life and a remainder man. Then, if each insures, although they may use words apparently insuring the whole property, yet each would recover from their respective insurance companies the value of their own interests; and, of course, that value added together, would make up the value of the whole property. Therefore, it would not be a case either of subrogation or of contribution, because the loss would be divided between the two companies in proportion to the interests which the respective assureds had in the property. But then, there may be cases where, although two different persons insure in respect of different rights, each of them can recover the whole, as in the case of a mortgagor and mortgagee. But, *wherever that is the case*, it will necessarily follow, that one of these two *has a remedy over against the other*, because, of course, the same property cannot belong at the same time in full value to two different persons. Each of them may have an interest which entitles him to insure for the full value; because, in certain events, if the other party becomes insolvent, it may be he would lose the full value of the property, and, therefore, may have in law an insurable interest, so that he can insure the full value; but yet, it must be, that if each can recover the full value of the property from their respective underwriters with whom they insure, of course, one must have a remedy against the other. I think, whenever that is the case, the company which has insured the person who has the remedy over, succeeds to his right of remedy over, and then it is a case of subrogation. Now, this is really a bailment of goods upon particular terms. If they were bailed upon ordinary terms, supposing there were no special terms at all, but they were simply bailed upon the terms that they were to be taken reasonable care of, and the bailee insured the goods for the purpose of protecting himself against any liability which he might sustain, and then they were lost by fire, caused by the carelessness of the bailee, there would not be the least doubt that that would be a case of subrogation. It is the ordinary case of an action for negligence. It would be just the same as a case where a ship is lost by collision, and the underwriter of that ship succeeds to the benefit of the action against the loss; and, in my opinion, it makes no difference that here the bail-

ment, instead of being in the mere ordinary terms that he should be liable to take due care, is upon the terms that he should be absolutely liable in the case of loss by fire. That is not a contract of insurance, so as to make the bailee himself an insurer; but it is really the terms of a contract of bailment by which he says: "If the property is lost by fire, I will not put you to proof whether it is lost by carelessness or not. It is part of the terms of the contract of bailment that I am absolutely liable in case of fire." That is merely part of the terms of the contract of bailment. Mr. Fry made a great distinction between whether it was tort or whether it was contract. What it really is is this—which is a very common thing in our law—namely, that arising out of contract. The relation of the parties entirely depends upon contract; but, at the same time, it is so far tort, that you might have sued on it according to the old law in an action on the case. Assuming, for a moment, that Barnett had not been insured at all, but that the simple case was whether Rodoconachi's insurers having paid Rodoconachi, would be entitled to be subrogated to his rights (and I am of opinion they would be) to entitle them to recover over as against Barnett, then that being so, it is not a case for contribution, because, it is not a case where the loss is to be divided. Where one company has no equity against the other, having each insured the whole property, one has a valid remedy over, and the other has not, and, therefore, this is no case for contribution between them. Then the only question remaining is, whether the insertion of the 9th clause makes any difference. I agree with the Master of the Rolls, whatever the construction may be, putting that in both policies, it cannot have any effect on the right of subrogation. It is argued, that being in both policies, the insurance company who insured Rodoconachi, are only liable for one moiety. But supposing they are only liable for one moiety, still they are entitled in respect of that moiety to be subrogated to Rodoconachi's action over against Barnett. I cannot see how the 9th clause can possibly affect that right, and therefore, they are still in that position that they are liable for nothing; that is to say, Barnett being perfectly solvent, they are really liable for nothing, because although they are liable for the whole or for a half to Rodoconachi, whether they are liable for the whole or for a half they have a remedy over against Barnett to recover that whole or that half from him. So that practically the insurance companies who have insured Rodoconachi are not liable for anything, and not being liable for anything—because they have got a remedy over against Barnett to recover against Barnett everything that they are liable to pay Rodoconachi,—I cannot see how the insertion of the 9th clause in either policy, or in both policies, can make them liable for anything they are not liable for otherwise. Still, when the question comes, what is the real construction of the 9th clause? I approved the construction of the 9th clause on the assumption that the law is, as I have said, with reference to that, and, looking at it, one has to say whether the 9th clause would really prevent Barnett,—he being the person really interested in it,—from recovering more than a moiety. I venture to say that it never could be the intention of the insurance company to prevent his recovering it. They have used words which I agree are difficult to construe, and which, *primâ facie*, at the commencement of them, do appear to apply to the case, because, there is an insurance covering the same property. I agree with what Mr. Fry says, that there is some difficulty in construing the words "covering the same property" to mean only "covering the interest in the same property." Then it ends by saying the consequence is to be that "the company shall not be liable to pay or contribute more than the rateable proportion of such loss or damage." That seems to me

to plainly to imply that the other company is to be liable to pay its proportion ; it is manifestly done on the assumption that the other company will be liable to pay the other portion. Then the facts are such that, in my opinion, the other company, for the reasons I have given, is not liable to pay the other proportion, because the other company is not liable to pay anything. It is liable to pay Rodoconachi the moiety, or the whole, which ever it may be ; but then, whether it is the whole or the moiety, it has the remedy over against Barnett, and, therefore, it is practically liable to pay nothing. In my opinion this 9th clause never could have been intended to apply, because it is putting it to a case in which, if it is made to apply, the consequence would be the insured would be deprived of his full remedy ; but when there was a liability in several companies, then the loss might be divided equally between them, instead of the one being liable for the whole, and being put to his right of contribution.

SIR R. BAGGALLAY—I am of the same opinion. The view I take of this case is shortly this : whether by operation of law, or by custom of the granary trade in London, or by virtue of some special contract between Messrs. Barnett and Messrs. Rodoconachi, Messrs. Barnett, as wharfingers, become liable for any loss or damage arising from fire which might occur to the grain which was warehoused with them by Rodoconachi. Now, it has not been contended that Barnett & Company were under any obligation to insure in respect of the grain so deposited with them. It was an option on their part, and if done was done for their own protection. I would, therefore, consider the case first as to how the matter would have stood if Messrs. Barnett & Company had not insured. I take it to be this : Rodoconachi having the primary liability of the wharfinger, for their own protection insured in the Plaintiff's and other offices. The fire having occurred, if Messrs. Barnett had paid the full amount of loss to Messrs. Rodoconachi, I cannot think it would be contended on any plausible ground, even that Messrs. Barnett & Company could have sued or used the name of Rodoconachi for the purpose of suing the Plaintiff Company with respect to policies which had been effected by them. But, on the other hand, having regard to the primary liability of the wharfingers, Messrs. Barnett to Rodoconachi, if the Plaintiff Company had in the first instance paid the amount of the insurance to Messieurs Rodoconachi, then I apprehend, upon the authority of the cases of *Mason v. Sainsbury*, and *Clark v. The Hundred of Blything*, the Plaintiff Co., would have been entitled to use the name of Rodoconachi for the purpose of suing Messrs. Barnett & Co. If that had been the state of the case, if Messrs. Barnett & Co. had not insured, how is it affected by the circumstance that they did insure, and for a large amount ? In the first place, I will consider what would have been the effect if they had insured by policies not containing this special clause. Then, I apprehend, the question would have arisen, whether there was or was not a double insurance as recognized by law and practice. I am not aware that there have been any cases similar to those which have arisen on marine policies with reference to fire policies ; but should those arise, I do not see why the principle enunciated by Lord Mansfield, in the old case of *Godlin v. The London Assurance Co.*, should not be equally applicable to fire policies as they are to marine policies. One passage of his judgment has been already referred to in the course of the argument, and there is another very concise statement by him to this effect : " but a double insurance is where the same man is to receive two sums instead of one, or the same sum twice over for the same loss by reason of his having made two insurances upon the same goods or the same ship." Then is the question altered by the fact, that in these policies there has been a particular

condition introduced which is recognized by the 9th clause? We are not called on to say what the effect might have been if there had been an universal custom established as far as regards fire policies to the effect of this condition. The very fact that the conditions are specially introduced into the policies when they are intended to have effect would negative the idea that there is any general rule or any general custom with respect to that matter; then I apprehend that this is a general condition introduced into the policy, which *prima facie* is binding only upon the parties to that contract. It may impose a limit to the liability of the Defendant Co. on Messrs. Barnett with respect to the amount they can recover; but, at present, I cannot see how the existence of the condition in the policy effected by Messrs. Barnett can in any way affect the insurance of Rodoconachi on the Plaintiff Co., and it, therefore, would appear to me really immaterial to consider what the true construction and effect of that condition is. But I am bound to say it appears to me the object and intent, although it may not be very clearly expressed in the condition, really amounted to this: that where there are several policies, and where there, in point of fact, is what is commonly called a double insurance, then, in order to do away with the old practice of the insured recovering the whole from one of several insurance offices, and then the one from whom it was recovered being put to obtain contribution from the others, this clause was put in to say, that the insured should, in the first instance, proceed against the several insurance companies for the aliquot parts for which they would be liable in consequence of that condition. Upon the whole, I am of the opinion that the decision of the Master of the Rolls in this case was right, and the appeal should be dismissed.

Mr. DAVEY.—The appeal will be dismissed.

Mr. FRY.—Do you ask for costs?

Mr. DAVEY.—Yes, I do.

LORD JUSTICE JAMES.—Very well.

Solicitors.—For the Appellant Cos., Daves & Sons, 9, Angel Court, E.C. ; for the Respondent Companies, Bircham & Co., Threadneedle Street, E.C. ; C. Eyre & Co., 1, John Street, Bedford Row, W.C.

VERBATIM REPORT of the "SALFORD CORPORATION
BRIGADE TEST CASE," with Judgment given on
Appeal.

SALFORD BOROUGH POLICE COURT, THURSDAY, MAY 4th, 1882.

Before Mr. JOSEPH MAKINSON, Stipendiary Magistrate.

THE SALFORD CORPORATION *v.* THE ROYAL INSURANCE COMPANY.

Action to recover £4. 18s. 9d., extraordinary expenses occasioned in the extinction of a fire at 89, Broad Street, Pendleton, on the 28th of October, 1881.

Mr. J. C. WALKER, Deputy Town-Clerk of Salford, appeared for the Plaintiff; and Mr. SAM TAYLOR, instructed by Messieurs. ORFORD & MILNE, for the Defendants.

Mr. WALKER: This is a Summons taken out under Section 275 of the Salford Improvement Act, 1862, to recover £4. 18s. 9d. for extraordinary expenses which the Corporation allege have been incurred by the Salford Fire Brigade in attending for the purpose of extinguishing a fire on October 28th, at the premises, 89, Broad Street, Pendleton. The fire broke out in the building at the rear of the premises, and spread right over the intermediate space (which was very small) on to the roof of the premises 89, Broad Street, and the roof actually took fire and demanded the attention of the firemen for some considerable time. When the fire was extinguished it was necessary to keep the roof and the rafters cool so that the fire should not break out again. With regard to the question of the jurisdiction of the Bench, if I prove to you that there was a fire on this occasion, that the risk to the property was what I have described, and that the Brigade rendered the service I have mentioned; and further, that the account I now hand to you was submitted to and approved by the Watch Committee, I shall contend, with regard to the amount of the apportionment, that it is not within your cognizance. You will have nothing to do but make the Order. The discretion as to what is reasonable rests entirely with the Corporation.

Mr. WILLIS—Examined by Mr. WALKER: I turned out with the whole of my brigade, and on arrival at the fire I found that two buildings at the rear of 89, Broad Street, were in flames, one was built of brick and wood, and the other all of wood.

Cross-examined by Mr. TAYLOR:

I had 25 men present, of whom seven were permanent firemen, and the others were policemen who act as firemen when necessary. The permanent firemen get a regular weekly wage whether they attend a fire during the week or not, and the police firemen get their wages as policemen, and from two to four shillings a week for acting as firemen whether they have to attend at a fire during the week or not. The turncocks are the only men who receive special pay for each of the fires they attend. They do not belong to the Fire Brigade but to the Water Department.

Mr. TAYLOR, in addressing the bench, said: When you come to look at those sections of the Salford Improvement Act which relate to the Fire Police, you will find that they explain clearly and distinctly what is the position of the owners, and also what is the position of the insurance

offices with regard to the liabilities that are imposed upon them. By the 270th section there is power given to the Corporation to maintain fire brigades, fire police stations, engine houses and other offices, the expenses of which are expenses that are paid by the ratepayers of the Borough and not by any individual. The object of the section is this, that persons who have to pay for the maintenance of these fire brigades are placed in a different position. Therefore, as regards all the general expenses attending the maintenance of a fire brigade, all those are paid by the public who are to have the advantage of the brigade for which they pay through the rates. The institution of the fire police is for the common advantage and the preservation of the whole of the district of the Corporation. In the next section (section 271) it is provided that the Corporation shall out of the public funds purchase all the things necessary for a fire brigade. Then comes this very material matter. The section shews what sums are to be paid by the public and what extraordinary expenses are to be paid by others. It says: "The Corporation may purchase or provide such engines, &c., for extinguishing fire, and may purchase, keep or hire, such horses for drawing such engines, &c., and may employ a proper number of persons to act as superintendents and firemen, and may allow them such wages and such rewards for their exertions in cases of fire as they may think proper," &c. This is what is to come out of the pockets of the ratepayers. Then comes the 273 section, which is very material. This provides: that the Corporation may permit their engines, &c., to proceed beyond the Borough for the extinguishing of fire happening to property in the neighbourhood, and the owner of such property shall, in such case, defray the actual expense that may be thereby incurred, and shall also pay to the Corporation a reasonable charge for the use of such engines, implements and apparatus, and for the attendance of such fire police; and in case of difference between the Corporation and such owner, the amount of the said expenses and charge shall be summarily determined by any justice." That section relates to the attendance at a fire which might occur beyond the boundary of the Borough, but the fire in question occurred within the Borough, and in the case of attendance within the Borough it is the attendance upon a ratepayer, who in the rates pays for the very advantage of having that attendance in common with others, but a man who does not so contribute by means of the rates has to pay everything. Insurance offices are to pay only extraordinary expenses, as will appear from the following section (section 274):—"And whereas it is expedient that all extraordinary expenses occasioned by any fire should be borne by and amongst all the respective insurance offices who have insured against fire property endangered, or to which assistance has been given or extended by such fire police establishment, and by and amongst all the respective owners of uninsured property endangered, or to which such assistance as aforesaid has been given or extended in fair and equal proportions. Be it enacted, that all such extraordinary expenses as aforesaid, in the case of any fire, shall be taken to be the wages of the fire police consequent upon the occasion, in addition to their ordinary allowance, and the payments for further assistance necessarily employed upon such occasions, together with such sum as the Corporation shall think reasonable for the use and risk of their engines and utensils," &c. Then section 275 says: "If any difference shall arise between the said respective offices and owners, or any of them, and the said superintendent, as to whether any such demand ought to be paid, or as to the amount of any such demand, then any justice shall, on the application of the said superintendent, issue his summons to any director or agent of any such insurance office, or any such

owner so disputing as aforesaid, to appear before two justices at a time to be named in such summons, and such justices shall, on hearing the parties and their witnesses, settle whether any, and if any, what amount ought to be paid to the said superintendent by such owner, director or agent aforesaid; and if it shall appear to such justices that any sum ought to be paid, they shall by their order direct such owner, director or agent as aforesaid to pay to the said superintendent such sum to them so appearing to be due, together (if the said justices shall think fit) with reasonable costs to be fixed by them, and such owner, director or agent shall forthwith pay the same sum and costs to the said superintendent accordingly." Then there is an alternative for the recovery of the money by an action at law. A difference has arisen, and in this case you are the only tribunal who can determine whether any amount is to be paid as extraordinary expenses, and if so, what amount.

Mr. MAKINSON: I agree with nearly all that Mr. Taylor has said with regard to extraordinary expenses, that is that the Fire Brigade are not entitled to charge for what fairly comes under the denomination of the ordinary expenses of the maintenance of the staff. If a Corporation keep a staff for the purpose of extinguishing fires, I quite agree that the maintenance of that is intended to come out of the rates. The principal point, if not the only point on which I differ from Mr. Taylor, is one upon which he has not chosen to argue, namely, as to whether a sum is allowable for the use and risk of the engines at the fire. Whether I have or have not power to interfere in that matter I do not know, and I am in some doubt, but at all events I think, so long as the Corporation use reasonable discretion in fixing what amount should be paid for the use and risks, I ought not to interfere, as they have a better opportunity of judging as to what should be paid than I have. Then as to the apportionment of the charges, I think that is entirely within the discretion of the justices. I have some doubt as to how the account should be assessed, whether it should be upon the amount of labour actually bestowed upon a particular building, or as the Corporation has assessed it, according to the respective amounts for which the premises were insured, and that point I should like to consider for some little time. (And he accordingly reserved his judgment.)

Mr. MAKINSON, on the 8th May, at the Salford Borough Police Court, in giving judgment, said:—

With reference to the case against the Royal Insurance Company, I have only one or two words to say. I adjourned the case the other day to decide upon the principle of the division, that is, of the proportion which should be paid by the Insurance Companies; and it appears to me that there are only two ways, either according to the amount for which the premises are respectively insured, or according to the work done; and it seems to me that the correct method must be according to the amount of work done, for if not, I think it would have been stated so in one of the sections of the Act. The charges are for extraordinary expenses, and the Act goes on to state what those expenses should be. The charge is for work done, and not for the amount insured, nor for what has been saved to the insurance company or owners of the property. The result will be, one-thirteenth of the total amount, which total amount is £14, taking it roughly, and within one or two shillings either way. One thirteenth of this amount will be £1. 1s. 6d. The result will be, that the amount to be paid by the insurance company to the Corporation will be £1. 1s. 6d. Each party will pay their own costs.

Mr. WALKER: I have to ask you to give me a case upon this.

Mr. MAKINSON: Yes.

**EXTRACT FROM THE SPECIAL CASE STATED BY
MR. MAKINSON.**

This is a case stated by me, the undersigned Joseph Makinson, Esquire, Stipendiary Justice for the Borough of Salford, in the County of Lancaster, under section 33 of the Statute 42 and 43 Victoria, chapter 49, on the application in writing of the Appellant, who was aggrieved with my order and determination upon the questions of law which arose before me, as hereinafter stated, on the 4th day of May, 1882, at Salford aforesaid, the Appellant having duly entered into recognisances to prosecute the Appeal.

Mr. MAKINSON, after referring to the various sections of the Act, said :—

The following facts were either proved before me or admitted by both parties.

Notice of the said fire was conveyed to the Salford Fire Police Stations, and thereupon the appellant turned out with his fire brigade, consisting of 25 firemen, 3 turncocks, the appellant, 4 pairs of horses, 1 manual engine, 2 engines and hose carriages, and 1 steam fire-engine.

The Corporation of Salford employ, for the purposes of the fire establishment maintained by them under the powers thereunto given them by the sections of the Salford Improvement Act, 1862, hereinbefore referred to, a superintendent, and seven permanent firemen, who perform no other duties than those incumbent upon them as connected with the said fire establishment. They also select 21 members of the Borough Police Force to perform, in addition to their ordinary duties as policemen, the duties of fire-police.

These fire-policemen hold themselves in readiness to attend the fire brigade upon the occasion of any fire, and are paid, in addition to their ordinary wages as policemen, a certain fixed weekly wage varying from 4s. to 2s., as remuneration for any duties they may perform as fire-policemen.

No additional wages or remuneration is given to any of the above-named superintendents, firemen, or fire-policemen, on the occasion of any fire.

The turncocks do not form part of the permanent fire establishment, and are only paid when they attend fires. They receive 3s. 6d. each for the first hour, and 1s. 6d. each for every subsequent hour.

The Corporation also keep in connection with the said fire establishment two pair of horses.

Of the 25 firemen who rendered assistance on the occasion of the said fire, 7 were permanent firemen and 18 were police-firemen.

The superintendent who was present at the said fire was the Appellant, who receives a regular salary from the Corporation of £170 per annum.

Of the horses used on the said occasion, two pairs were the property of the Corporation. One additional pair was hired for the occasion by the Broughton District Brigade, at a cost of 22s.; the other additional pair by the Pendleton District Brigade, at a cost of 15s.

Of the men who remained to watch the fire, as hereinbefore mentioned, two were permanent firemen, exclusively employed as such by the Corporation, and two were police-firemen.

ON THE PART OF THE APPELLANT IT WAS CONTENDED.

1. That the several charges included in the account marked B were properly payable to him as "extraordinary expenses" within the meaning of section 274.
2. That the question of the reasonableness of those several charges was a matter for the determination of the Corporation, and not within my jurisdiction.

3. That I was bound by section 274 to apportion those several charges according to the amount for which the Respondents had insured the buildings numbered 3 and 4, and that I could not take into consideration the proportion of the work done and services rendered to those buildings. I found that the following items only were chargeable by the Corporation as extraordinary expenses within the meaning of section 274 of the said Act, namely—

ORIGINAL ACCOUNT B.		AMOUNT AS ALLOWED.	
£ s. d.		£ s. d.	
25 Firemen 2 hours, at 3s. 1st hour, 1s. 6d. each hour after .	5 12 6		
3 Turncocks 2 hours, at 3s. 6d. 1st hour, 1s. 6d. each hour after	0 15 0	.. .. .	0 15 0
1 Superintendent, 10s. 1st hour, 5s. each hour after	1 0 0		
Horse hire, 4 pairs, .. hours at each	4 4 0	.. .. .	1 12 6
Watching 23 hours, at 1s. each .	1 3 0		
1 Manual Engine	1 1 0	.. .. .	1 1 0
2 Engines and Hose Carriages 2 hours, at £4. 4s. each ..	8 8 0	.. .. .	8 8 0
1 Steam Fire Engine, turn-out .	2 10 0	.. .. .	2 10 0
Apparatus left to cool debris 1 day	1 0 0		
	<u>£25 13 6</u>	Making a total of	<u>£14 6 6</u>

INSURANCE OR VALUE.

	Of Stock.	Of Build-ings.	Total.	Apportion-ment.
				£ s. d.
CountyInsc. Co.		1200		19 15 0
Miss Ainsworth		60		0 19 9
Royal Insce. Co.		300		4 18 9
				<u>25 13 6</u>
Amount due from you according to the above apportionment is				<u>£4 18 9</u>

I accordingly disallowed the other items mentioned in the account B, and I ordered the Respondents to pay the sum of £1. 1s. 6d. without costs, being the proportion of the sum of £14. 6s. 6d. apportioned as their share, according to the amount of work and service rendered to the premises so insured by them.

THE QUESTIONS FOR THE OPINION OF THE COURT ARE :

1. Were any, and if so, which of the items in the account B which were disallowed by me, "extraordinary expenses" within the meaning of the Act?
2. Was the question of the reasonableness of the charges in the account marked B within my jurisdiction?
3. Was I bound to apportion the charges as contended by the Appellant?
4. Is the correct principle of the apportionment the amount of work and service rendered to the respective premises, or—Is it the respective amounts for which the several premises are respectively insured?

WESTMINSTER HALL, 7th NOVEMBER, 1882.

IN THE HIGH COURT OF JUSTICE, QUEEN'S BENCH DIVISION.

Before Mr. JUSTICE FIELD and Mr. JUSTICE STEPHEN.

WILLIS, Superintendent of the Salford Fire Brigade *Appellant,*

v.

THE ROYAL INSURANCE COMPANY *Respondents.*

Mr. HOPWOOD, Q.C., M.P., and Mr. SUTTON, for the Appellant;
Mr. GULLY, Q.C., and Mr. SAM TAYLOR, for the Respondents.

Mr. HOPWOOD: My Lord, this is a case stated by the Stipendiary Magistrate for Salford as to the construction of a Local Act; the sections are stated at length in the case. It is a question as to the power of the Corporation to charge certain expenses in respect of services rendered by them as the institutors and keepers of the Fire Brigade.

Mr. JUSTICE FIELD: The question is whether these are extraordinary expenses. How can the Court know what are extraordinary expenses?

Mr. GULLY: He allowed for one pair of horses instead of four at the fire, and they want you to tax it.

Mr. HOPWOOD: There is the first item of £5. 12s. 6d. The Magistrate has disallowed the whole.

Mr. JUSTICE FIELD: On the ground that they were the servants of the Watch Committee, and therefore their expenses were not extraordinary.

Mr. HOPWOOD: From our point of view, the whole of that is extraordinary; 18 are found to be the fire-police, who are charged for in addition to their ordinary pay whenever they are serving on that duty.

Mr. JUSTICE STEPHEN: There are only four items in dispute.

Mr. HOPWOOD: I had better take the £5. 12s. 6d. The section under which the Magistrate is to decide is, I think, the 274th—"And whereas it is expedient that all extraordinary." I neglect the former words, which refer to the power of the Corporation to provide engines, and so on.

Mr. JUSTICE FIELD: Those charges would come out of the Borough Rate.

Mr. HOPWOOD: Yes, my Lord, all of them. I have to contend, that whenever a fire occurs, it is an extraordinary expense within the meaning of the Act.

Mr. JUSTICE STEPHEN: That all the expenses of putting fires out are extraordinary expenses?

Mr. HOPWOOD: Yes, I contend that the object of the Act was that the department or the local body should provide and have all the apparatus ready; but whenever it has to exert itself it becomes, within the meaning of this Act, an extraordinary expense. At first the words strike me as peculiar; because, if you say it is not an extraordinary thing that a fire brigade should be employed, reasoning in that way, it would at once be rather against my argument. But then, your Lordship sees, a plant has to be provided; the district is burthened, in the general interest of the community, with the provision of that plant, to have it in readiness. Then comes the question of what the expenses are. There are daily accruing expenses, which the rates of the neighbourhood are paid to meet, and do pay for. Those are usual expenses. Then the moment you have a strain put upon them, by a fire that

occurs in the neighbourhood, and somebody's property is in danger, he is called upon to contribute, in the sense of its being extraordinary.

Mr. JUSTICE FIELD: At what moment of time does an ordinary expense become an extraordinary one?

Mr. HOPWOOD: The moment they are called to the fire.

Mr. JUSTICE FIELD: The moment the bell sounds they can stop immediately, and charge all their wages to the uninsured or insured.

Mr. HOPWOOD: I do not say all. Referring to the 274th section of the Act, I will show by the case that the Magistrate has found that 18 were employed on this day of that character. In paragraph 13 you will see—"The Corporation of Salford employ, for the purposes of the fire establishment maintained by them under the powers thereunto given them by the sections of the Salford Improvement Act, 1862, hereinbefore referred to, a superintendent and seven permanent firemen, who perform no other duties than those incumbent upon them as connected with the said fire establishment. They also select 21 members of the Borough police force to perform, in addition to their ordinary duties as policemen, the duties of fire-police." Then paragraph 14—"These fire-policemen hold themselves in readiness."

Mr. JUSTICE FIELD: Those are the 21 policemen.

Mr. HOPWOOD: Quite so, my Lord. "These fire-policemen hold themselves in readiness to attend the Fire Brigade upon the occasion of any fire, and are paid, in addition to their ordinary wages as policemen, a certain fixed weekly wage, varying from four shillings to two shillings, as remuneration for any duties they may perform as fire-policemen."

Mr. JUSTICE FIELD: The paragraph, "No additional wages or remuneration is given to any of the above-named superintendents, firemen, or fire-policemen, on the occasion of any fire," is important.

Mr. JUSTICE STEPHEN: It says the turncock is paid only when attending at a fire.

Mr. HOPWOOD: Yes, he is allowed that. Then one paragraph says, "The Corporation also keep in connection with the said fire establishment two pair of horses." And another paragraph: "Of the 25 firemen who rendered assistance on the occasion of the said fire, seven were permanent firemen and 18 were police-firemen." In regard to the 18 he has allowed nothing whatever. Then the superintendent who was present at the said fire was the Appellant, and he receives a regular salary from the Corporation of £170 per annum.

Mr. JUSTICE FIELD: 25 firemen, seven of whom were permanent on wages, and 18 of whom were also permanent on wages; they were all permanent on wages. I do not see any distinction between them.

Mr. JUSTICE STEPHEN: He charged two hours for each of the 25 firemen and the turncocks.

Mr. HOPWOOD: You see what the service rendered is.

Mr. JUSTICE STEPHEN: And there is the superintendent. The 25 men and the superintendent are struck through, and the turncocks are left in. You do not object, Mr. Gully, to the turncocks being paid for.

Mr. GULLY: No.

Mr. JUSTICE STEPHEN: They are under the Act.

Mr. GULLY: Yes.

Mr. JUSTICE STEPHEN: You say these men would get their wages, fire or no fire, therefore you have not to pay.

Mr. GULLY: These are not consequent upon the occasion.

Mr. JUSTICE FIELD: That is how he has decided it.

Mr. HOPWOOD: I presume so, my Lord.

Mr. JUSTICE STEPHEN: He said, "You will have to pay the wages anyway, and the fire did not cause any expenses in that matter."

Mr. JUSTICE FIELD: What expense did it cause?

Mr. JUSTICE STEPHEN: What do you say upon that?

Mr. HOPWOOD: I say it was an extraordinary expense.

Mr. JUSTICE STEPHEN: An extraordinary expense must mean something different from an ordinary expense.

Mr. JUSTICE FIELD: The same words have been construed recently in a similar clause about a traction engine. It was said that an extraordinary expense must be borne by the owner of the traction engine. There was the ordinary expense for repairing the road. Anything beyond that was extraordinary. If the items disallowed in this case are not ordinary expenses, then these men might be enjoying themselves at places of resort when they are not at a fire. They exercise the hose every now and then.

Mr. HOPWOOD: The only way in which I can put that is this—The plant is provided for the use of the neighbourhood, and is provided by means from the public resources; then anybody who calls for it asks for an extraordinary expense.

Mr. JUSTICE FIELD: Surely, if the Legislature intended that the owners of property were to bear that extraordinary expense, they would have said, "And that the expense of putting out such fires, or assisting to put out such fires, shall be borne by the owners of property."

Mr. HOPWOOD: This is not the owners of property, this is an Insurance Company. It may be an Insurance Company in New York demanding the benefit of the Fire Brigade in Salford.

Mr. JUSTICE STEPHEN: Why not. The house is in Salford. I do not see it makes any difference.

Mr. HOPWOOD: I do not say it is anything very monstrous in point of justice, but I say there may be a reason for holding it to be an extraordinary expense, in regard to that which Mr. Justice Field presses me with.

Mr. JUSTICE STEPHEN: It seems to me so very plain that an extraordinary expense must be an expense not ordinarily incurred; this expense would have been incurred whether there was a fire or not.

Mr. HOPWOOD: I have a difficulty, because a section defines what extraordinary expenses are, and if I cannot bring it within that, I admit I have great difficulty.

Mr. JUSTICE STEPHEN: Considerable difficulty.

Mr. HOPWOOD: I am afraid I must leave that, and I come to another point I should like to make. Is the correct principle of apportionment the amount of work and service rendered to the respective premises, or is it the respective amounts for which the several premises are respectively insured. My Lord, the important clause is 274. At the end of 274 it says, "And when any property is insured in two or more insurances offices, each such office shall only be liable in proportion to the respective amounts by such office insured." Here, my Lord, there are three factors in the matter: there is the County Insurance Company, which insures for £1,200; there is the Insurance Company, the Respondents, which insures for £300; and there is the portion of the premises uninsured.

Mr. GULLY: I think I may relieve my friend here. The Insurance Company whom I represent say that they are always prepared to pay according to

the rate of insurance. This is not their point at all, it is the point of the Magistrate; they are quite willing to pay on the insurance.

Mr. JUSTICE FIELD: You say it ought to be according to the amount insured.

Mr. HOPWOOD: Yes.

Mr. JUSTICE FIELD: Mr. Gully does not say the contrary.

Mr. GULLY: My clients are content to pay upon the risk saved. Very often the smallest service done at the earliest period is of the greatest advantage to them.

Mr. JUSTICE FIELD: It is hardly worth while sending it back. You may agree to a sum which the company would pay.

Mr. GULLY: Yes.

Mr. JUSTICE STEPHEN: I have not got the words of the section quite fully before me, but I think what you contend about that Mr. Hopwood is quite right.

Mr. GULLY: On the other points the contention of the Magistrate is upheld.

Mr. JUSTICE FIELD: Therefore we answer the questions in this way, we say that none of the expenses disallowed were extraordinary expenses. We say that the questions raised were within his jurisdiction, and that the Appellant's mode of apportioning the charges were correct; but it is not necessary to send it back again, because the Company will agree to pay according to that calculation.

Mr. GULLY: Yes.

Mr. JUSTICE FIELD: No costs. We have decided in your favour, and one point the other way. There will be no costs on either side.

MACHINERY VALUATIONS.

The following particulars relate to a case which was heard in the Queen's Bench Division in March, 1883. The attention of the professional insurance man is specially directed to the remarks of Mr. Justice Mathew, in which the astounding doctrine is attempted to be laid down that, because an insurance surveyor had examined the premises before the policy was drafted, the insurance company *valued* the property at the amount as it appeared in the policy. However arduous and prolonged the struggle, insurance companies must persevere until they succeed in demonstrating clearly to others (the legal profession in particular) what to themselves at least is the patent fact, that a reliable valuation of manufacturing plant, in every case of a proposal for Fire Insurance, could not be carried out, except on terms that would make all insurance

impossible; and that a *quasi* valuation or a haphazard acceptance of the proposer's figures as the *measure* instead of as the *limit* of the sum recoverable by him in case of fire, would simply lead to an undesirable increase in one of the most objectionable items of the criminal statistics of this country.

(See "Valuations and Valued Policies," in the body of this book.)

QUEEN'S BENCH DIVISION.

(Before Justices GROVE, LOPES and MATHEW.)

CHARNLEY v SCOTTISH UNION AND MUTUAL FIRE INSURANCE CORPORATION.

Mr. DIGBY SEYMOUR, Q.C. (with him Mr. WADDY, Q.C. and Mr. WHEELER), moved in this case for a rule *nisi* calling upon the plaintiff to show cause why there should not be a new trial. He said the case was tried before Mr. Justice Denman at the late Leeds Assizes, and there was a verdict for the plaintiff in the whole, including interest, for £20,296, inclusive of salvage, which remained, by consent, the property of the plaintiff. The verdict consisted of £19,028 compensation for damages, and £1,268 for interest. He was instructed to apply for a rule for a new trial, on the ground that the damages were excessive, and that there was misdirection as to the base on which the damages were to be assessed, and that, under the special circumstances of the case, the direction of the Judge was misdirection. As the learned Judge who tried the case seemed to be satisfied with the verdict, they did not ask for a rule on the ground of fraud or arson. A fire occurred on the 17th July, 1881, and the property was covered by two insurances, which amounted to £30,620. Now, to start with, the plaintiff took a view of his insurable interest which he thought would satisfy the Court, entered into his calculation for his claim, leaving out altogether the question of fraud. From the very outset he placed his insurable interest at an excessive amount. For instance, of the total £30,620 for which the property was insured, the amount at which the stock was valued was £6,950, leaving for machinery, &c., £23,670. It had been proved at the trial that the cost of this machinery was £11,812, leaving £11,837 over-insurance on that item. Thus the insurance amounted to double the value of the goods.

Mr. Justice MATHEW.—When was the insurance first effected?

Mr. SEYMOUR.—On the 25th March, 1881.

Mr. Justice MATHEW.—Under the policy have you a separate valuation for buildings, plant, and machinery?

Mr. SEYMOUR.—Yes, and the Company did send in.

Mr. Justice MATHEW.—Well then, they, as it were, valued the property at the amount as it appeared in the policy. It is to the advantage of the Company to have insurances for large amounts, because they get higher premiums.

Mr. SEYMOUR.—All that the Company can do is to see that the building is insurable, and they see generally the condition of the machinery in a concern which is more or less a going concern, and they take the risk. But if it turns

out afterwards that they had no opportunity of really knowing that this machinery was not the machinery they thought it was, surely it becomes important whether the Company is to be mulcted on the principle that they are to supply new for old.

Mr. Justice MATHEW.—That is the bargain they have made.

Mr. SEYMOUR pointed out that the condition of this policy was that, on the happening of any loss or damage by fire to any of the property insured, that the insured was to give notice in writing of the same within 15 days, together with the several value of the goods at the time of the fire. That was not the value limited in the policy, but the value of the property at the time of the fire.

Mr. Justice GROVE.—Before going further, Mr. Seymour, what is generally your broad case?

Mr. SEYMOUR said his broad case was this, namely, that a contract of fire insurance was simply a contract of indemnity, and that a man had only a right to be recouped to the value of the machinery as it stood at the time of the happening of the fire; and that if he came before a Court claiming to make up his loss upon the basis of getting new for old, setting aside the cost price, that would be simply indulging in speculation at the expense of the Company, and the upholding of such a principle would offer a premium to fraud. In this case a verdict was given which was not based upon a principle of indemnity, but of reinstating with a view to make the new compensate for the loss of the old; and he got another argument from the conditions, because the Company were allowed, if they thought proper, to replace or reinstate, but no such option was given to the assured.

Mr. Justice GROVE remarked that the value of a thing was what it could be replaced by.

Mr. SEYMOUR said that this would make a fire a boon to the party insured, and he contended that no person should be allowed to make a fire a source of profit. He proceeded to quote cases in support of his contention, that the plaintiff had no right to expect to have his own old goods replaced by new ones, which plaintiff had all along asked for.

Mr. Justice GROVE, in giving judgment, said he was of opinion that on misdirection there should be no rule. Indeed, if there had been misdirection at all, he thought it was rather in favour of the defendants than against them. On the excessive damages, however, the Court thought that there should be some further investigation of the figures, and granted a rule on that point.

Mr. Justice LOPES and Mr. Justice MATHEW concurred.

Rule *nisi* granted accordingly.

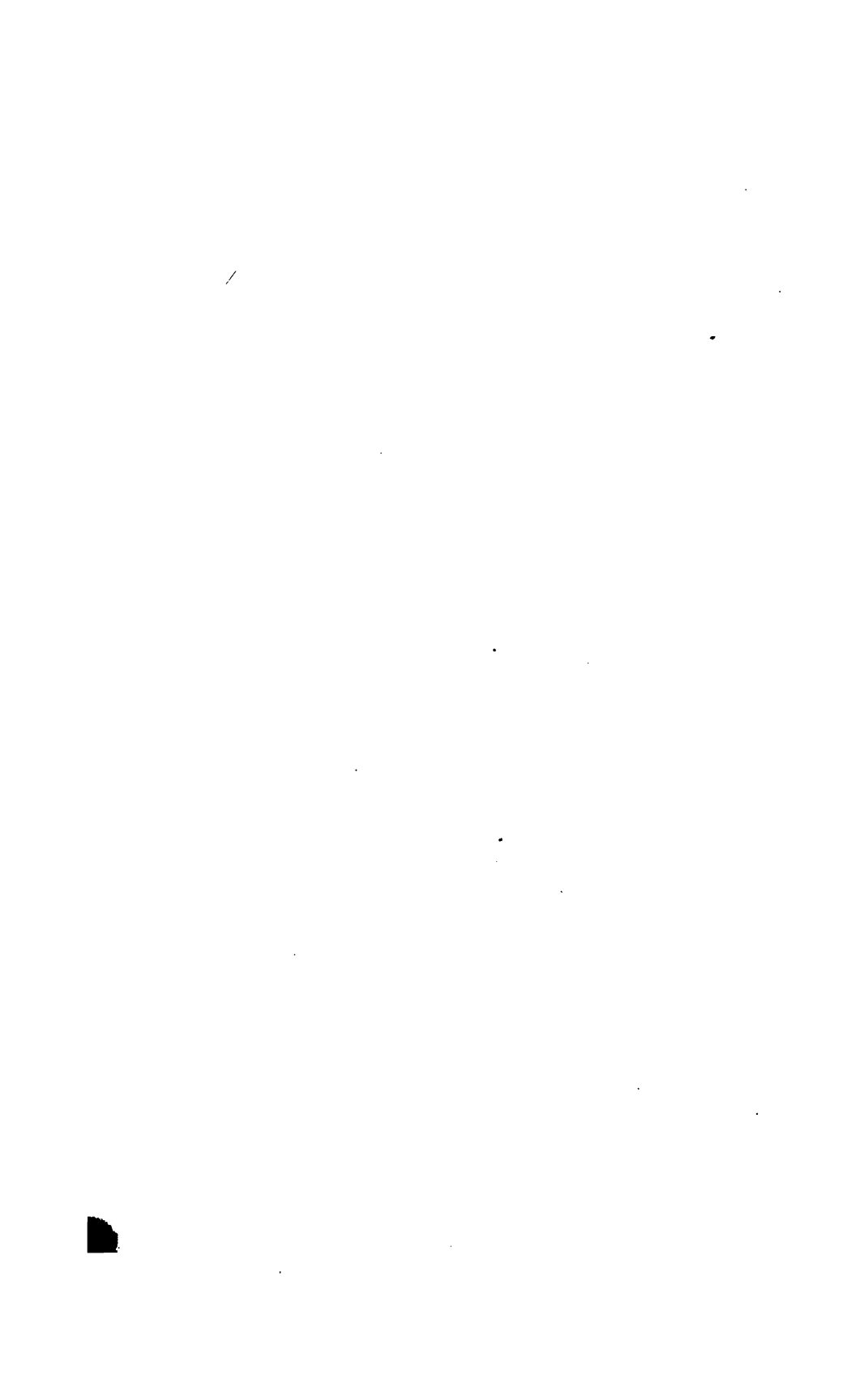
CHOMAGE INSURANCE.

(Mr. GRISWOLD, in the New York *Insurance Monitor* for February, 1883.)

Chomage Insurance is intended to cover consequential damage arising from the occurrence of fire, and not included in ordinary fire policies;—such as loss of revenue from capital, plant or machinery, &c., caused by destruction of the property of the insured, whether merchant or manufacturer, who may thus hold simultaneously a regular fire policy upon buildings, and stock or machinery, and another, entirely distinct, upon the same property, but based upon the productive value of such property, and the average yearly income derived therefrom, upon which interest at a certain rate per cent. (usually 6 to 10) is guaranteed by the policy from, and after the fire—during such time as, from the circumstances of the loss, the capital invested may remain totally or partially, yet compulsorily, unavailable to the insured, as in rent or lease policies, which represent the principle exactly. The amount of Chomage Insurance is limited to the amount of Fire Insurance, as also is the amount of loss limited to the amount paid for loss under the fire policy on the property.

This principle is the foundation of Mortgagee insurance, rent and lease policies, policies on profits, or commissions unearned, and insurance of productions at Mills, under contracts guaranteeing against failure to fulfil such contracts when the failure is caused by fire. The premium charged is the same as that for the ordinary policy on the same property.





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